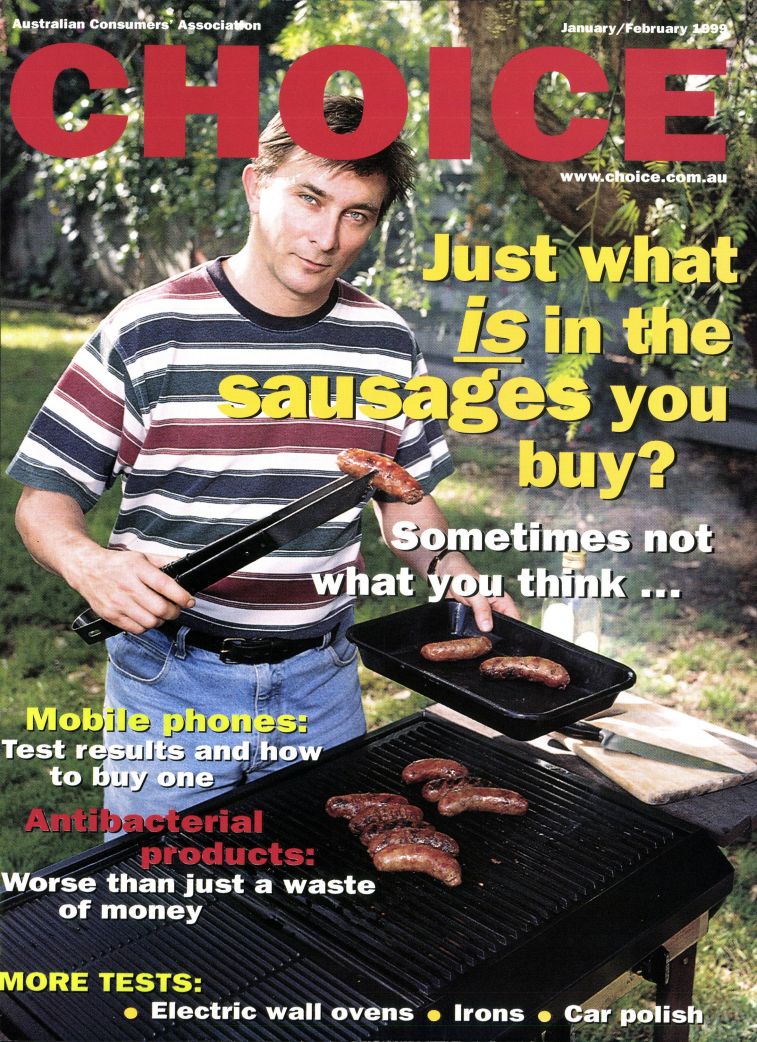
Australian Consumers' Association

January/February 1999

CHOICE

www.choice.com.au



Just what *is* in the sausages you buy?

Sometimes not what you think ...

Mobile phones:
Test results and how to buy one

Antibacterial products:
Worse than just a waste of money

MORE TESTS:
• Electric wall ovens • Irons • Car polish

The meaning of 'choice'

Jane Mackenzie

Have you ever felt unconsulted when some industry or organisation claims it's introducing more 'consumer choice'? Often the upshot is just to make it harder for you to work out what the best purchase for your situation is.

It's hard enough walking into a shop and being confronted with, say, 15 models of washing machine or TV and having to decide which is best for you, but buying a service like insurance is even worse. You wade through half a dozen tedious policy documents just to pay out for something you hope you'll never have to use. But at least CHOICE can help you with these purchases — that's why we've been testing products and comparing services for you for so many years.

When 'consumer choice' — and its usual companion, 'increased competition' — are brought into the health arena, though, we can't help you in the same way. We can't tell you, for example, which hearing aid is 'best': that depends on your particular hearing difficulties and condition.

This is just what's happened in at least one area of healthcare — see our report on hearing aids and services, starting on page 24.

Many people are eligible for a free hearing aid through the government's hearing services program. That's good, but recently funding to service providers was decreased, at the same time as 'increased competition' and 'more consumer choice' were introduced.

The upshot of this is that many service providers are expected to give non-paying clients the same assessment, fitting and other assistance they need for less money. And all this at the same time as more choices are available under the program, so people need more guidance.

This means that if you're not a persistent, assertive consumer who goes out of your way to find all the available information and enlist the help of relevant support associations, you're probably not going to get the best possible service. How many elderly people who are hard of hearing fall into this category?

It's time 'consumer choice' stopped being used as a smokescreen for reducing government commitment to basic service needs — especially those for vulnerable consumers, who are rarely in a position to make an informed choice.

Jane Mackenzie, Editor

Your letters

We welcome the letters you send us — please always include a daytime telephone number so we can contact you quickly if we want to follow up your letter. We're sorry we can't personally answer every letter we receive, but we do use them in our research. Thanks for taking the time to keep in touch.
Write to us at CHOICE, 57 Carrington Road, Marrickville 2204.
Phone us on (02) 9577 3399.
Fax us on (02) 9577 3355.
email us at ausconsumer@choice.com.au
World Wide Web address: www.choice.com.au

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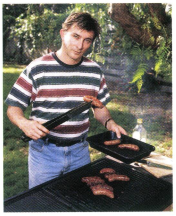

Cover photo: Kent Mears

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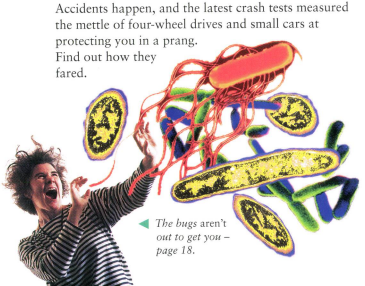

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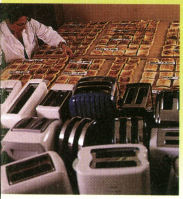


Coming in the next three issues:

Tests: Toasters, hifi VCRs, washing machines, roof restoration companies, 34 cm TVs, convection heaters, breakfast/muesli bars, sandwich makers, car steering locks, dishwashers.

Reports: How to pay less for your banking, water quality and filters, how to choose a tradesperson, your restaurant rights, antioxidants, fiddling with our food (fake fat and other novelties), hair care products, appliance reliability, choosing a mattress, heating options, loyalty schemes, indigestion remedies, what loan for what, food additives, car security systems.

We try to bring you tests and reports in the planned month, but sometimes have to move an article because of problems that occur during testing and research, or for lack of space in a particular issue. We apologise if this causes any inconvenience.

◀ *Finding a toaster that makes good toast isn't as easy as you'd expect.*

Consumer action pays off

JENNY TROUT OF JEWELLS, NSW, made a special trip to her local supermarket to buy a hose reel advertised in a sale catalogue for $15. But when she got there it had sold out already — on the first day of the sale.

"There should be some sort of law that prevents such misleading advertising being used just to get people into the store," says Jenny. "They should have had at least sufficient stock to last for half the period the catalogue was running (two weeks)."

Advertisers can indeed be taken to task for misleading advertising, which includes the practice where you're offered a more expensive item because the one advertised at a bargain price is sold out. Under the Trade Practices Act, a seller has to ensure that goods advertised at a special price are available for a reasonable period and in reasonable quantities.

If you suspect a seller of using misleading advertising, contact your state fair trading/consumer affairs office. If possible, keep the ad as evidence. In the first place, however, try to sort it out with the store in question and/or write a letter to the management. That's what Jenny did, and her efforts have paid off. The shop found another hose reel and sold it to her at the advertised price.

Update

House and contents insurance

Since our article in November 1998, we've heard from a lot of readers who've found even more reasons why house and contents insurance is such a minefield (see *Saving your home from the big bad wolf*, CHOICE, November 1998).

Many of our readers were attracted by the low rates quoted for **IBN**, only to find their premium would be much higher. As noted in the article, our premium was for a 10-year-old brick veneer house with three bedrooms, tile roof, deadlocks on the doors and key-locked windows. The value of the house varied, depending on which state you live in. The amount of contents insured was $55,000. Unless your home or contents match this scenario, the amount you pay will be different. The same applies to all the companies' premiums. However, we'd expect the same companies to be cheaper or more expensive as in our tables.

Other people have contacted **COMMERCIAL UNION** for flood cover, only to be denied. As we pointed out in the article, flood cover is often considered on a case-by-case basis, and a company may refuse to cover your specific circumstances.

COMMERCIAL UNION says it won't provide flood cover for a known flood-prone area. Before giving you cover it will look at the likelihood of flood on your property and consult the local council. Even then, cover is an extra, with an additional premium and excess.

TIO also contacted us with an update to its policy details. In addition to the information we published, **TIO** also provides:

- A no-claim bonus.
- A discount if you have other policies with **TIO.**
- Landslip cover following an earthquake or explosion.
- Accidental damage cover (as a separate policy).

If you'd like help calculating the value of your contents and you have access to the Internet, you can use our contents calculator. Just follow the prompts at: www.choice.com.au.

When you're working out how much to insure your home for, you need to include the cost of clearing your site and building from scratch. This is known as the reconstruction cost. A list of quantity surveyors who can provide you with an estimated reconstruction cost is available from the Australian Institute of Quantity Surveyors on (02) 6282 2222.

Can you help?

Got a new fridge?

If you've bought a new fridge in the last 12 months, we'd like to find out if you're satisfied with its performance, and we'd appreciate your taking the time to answer the following questions:

- What is the brand and model of your fridge?
- When did you buy it?
- Have you been happy with it?
- Is there anything you particularly like about it?
- Would you recommend it to others?
- Have you had any problems:
  — understanding or using the temperature controls?
  — with the temperature inside the fridge or freezer? For example, is it either too warm or too cold? Are some parts of the fridge impossible to get right?
  — with noise?
  — with any other aspects? If so, please give us the details.
- Have you had it repaired? If so, what was the problem and was it fixed? Was it covered under warranty?

Please write to us at **Fridges,** CHOICE, 57 Carrington Road, Marrickville 2204; fax us on (02) 9577 3377; or email us at: fridges@choice.com.au by the end of February.

Thank you for your help.

Corrections

House and contents insurance

CHOICE, November 1998

On page 23 we said the limit for tools of trade under the **RACV** policy was $500. This should have been $1000.

Toothbrushes

CHOICE, November 1998

On page 17 we said the price of the **JUST-ESS Clean Angle** toothbrush was $3.35. In fact this is the price for a pack of four.

Water-efficient shower heads

CHOICE, December 1998

On page 37, the photos of the two **FLEXISPRAY Conserva Calypso** models were accidentally swapped and each is next to the profile of the other.

Rego tailpipe tests

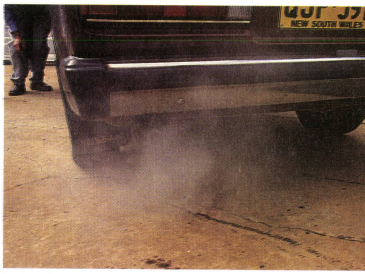
THE NSW GOVERNMENT HAS ANNOUNCED THAT in 2001 it will introduce compulsory emissions testing as part of the registration process for petrol-powered vehicles more than four years old.

First in Sydney, then later extending to Newcastle and Wollongong, the tests will check for excessive levels of carbon monoxide, carbon dioxide, hydrocarbons and oxides of nitrogen.

If your car fails the test it will have to have a tune-up, but the government says there will be a cap on the cost of necessary repairs. Older vehicles won't have to meet the same standards as newer models, but should be maintained according to the manufacturer's recommendations so they remain as close to the original design performance as possible, allowing for normal wear and tear.

The tests won't be required for diesel vehicles (mostly trucks) because the technology for testing diesel combustion pollutants isn't well developed yet.

Other states and territories aren't planning such legislation, though the Queensland Transport Department is trialling random roadside emission tests to gauge the extent of the problem.



You won't be able to get away with this for much longer in NSW.

CHOICE is one of many consumer magazines from organisations worldwide that make up Consumers International. Get the lowdown on what's happening with your fellow consumers around the world in World Consumer Snapshot.

Good enough to eat?

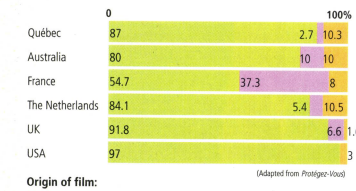
The American consumer magazine for kids, *Zillions*, exposed some of the tricks advertisers use to make TV food look good:

- Does that soggy cereal look unappetising? Use hair tonic — it looks like milk, but the breakfast cereal doesn't absorb it.
- Need a peach out of season? No problemo — just spray a nectarine with athlete's foot spray for that fuzzy look.
- Chicken leg looking a bit wimpy? Simply inject mashed potato under the skin.
- Need a handsome hamburger? Vaseline adds a nice sheen to the meat (which is only cooked on the outside), sheets of plastic under tomato stop it making the bun soggy, and bits of paper towel prop up droopy lettuce. Lastly, give the bun a touch-up by gluing on extra sesame seeds.

Don't try it at home, folks!

Invasion Américaine!

Québec's consumer magazine, *Protégez-Vous*, is up in arms about the domination of American movies in the province's cinemas, where *le cinéma américain* commands 87% of ticket sales, compared with 2.7% for Canadian films. *Quelle horreur!* We Aussies are apparently a more parochial lot, with a relatively high 10% of ticket sales going to local films, while the French, not unexpectedly, had the highest local support. The chart below shows the percentages of box office takings.



(Adapted from *Protégez-Vous*)

YOUR*letters*

Appliances suitable for all

It is pleasing to see CHOICE covering issues confronting people with disabilities. In particular, the article on the user-friendliness of washing machines in the September 1998 issue highlighted the obligations of appliance manufacturers today and even more so in the future.

Blindness and vision impairment should be no barrier to using appliances such as washing machines. Manufacturers need to understand that the design of an appliance can either empower a vision-impaired person or weaken their ability to live independently. It's a pity that modern design principles have largely meant the abandonment of tactile features and strong colour contrasts.

One of the Association for the Blind's core services is visiting people in their homes and modifying appliances so that they can be used safely. The need for this service is increasing with our aging population and the corresponding rise in people with sensory loss. Wouldn't it be good if manufacturers followed some simple guidelines that would make the appliances suitable from the start for people with disabilities?

It's important that influential publications such as yours continue to encourage the providers of goods and services to address the needs of people with disabilities.

John Cook
CEO, Association for the Blind
Brighton, Victoria

Real estate commissions

In your September 1998 article on financial advice (*Financial advice: who do you choose?*) you quote in the section on estate agents a commission range of 0.75% to 1.5%.

I am concerned that this could create confusion in Victoria because commission rates are generally much higher. Commissions have been deregulated for several years, and while rates below 1% have been negotiated for large commercial or industrial transactions, most residential business attracts a commission of around 3% — frequently higher for lower-value properties.

We advise consumers to check with several agents before appointing someone to sell or manage their property. Vendors should expect to see a detailed marketing plan and comprehensive explanation of what services the agent will provide for the fee.

Finally, the Real Estate Institute of Victoria runs a most comprehensive dispute resolution service. Our information lines handle about 30,000 calls each year. We process 100 to 150 complaints and disputes between members and the public each month — happily, most are resolved through a mediation process. During 1997–98 our conflict management system processed 458 files that required arbitration.

To reach this service, phone (03) 9205 6677.

Norman Huon
CEO, Real Estate Institute of Victoria
Camberwell, Victoria

Check your insulation when it's installed, to make sure you get what you're paying for.

Always check before you pay

I'm writing to share my experience of roof insulation with other consumers.

Last summer I had my roof insulated with fibreglass. At first I was quite happy with the job — there was a noticeable drop in the room temperature. But after a few days I noticed that the temperature inside the house was going slowly up, especially in the western part of the house, so I checked under the roof.

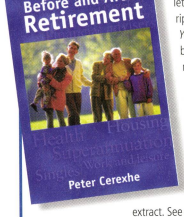
To my surprise I found that the insulation didn't cover the whole surface, as per quotation. An area of about 25 cm to 75 cm near the wall all around the house was left without insulation.

I immediately rang the supplier/installer and complained about the deficiency, but it took a few weeks before someone came to fix it. Not only that, when they finally did rectify the problem, they installed an inferior insulation material with a lower R-value [insulation performance]. In some areas they simply stretched the insulation material to make it fit up to the wall, and then they didn't fill the gaps that appeared as a result of the stretching. Needless to say, I complained again.

I would like to advise people who are planning to have their roofs insulated to always check that the job is done properly. Otherwise you mightn't get the value you've paid for.

Ebenezer Martinez
St Clair, NSW

LETTER OF THE MONTH



We want to hear from you — your experiences help our research and often let other readers know about scams and rip-offs. To thank you for writing to us, *Your Letters* awards a prize of a CHOICE book to the 'Letter of the month'. This month's winner, Ebenezer Martinez of St Clair, NSW, receives *Before and After Retirement*, or any other book of his choice from Consumer Bookshelf, pages 40 to 42.

We're sorry we don't have the resources to answer all your letters personally, and in the magazine we may edit them or print only an extract. See page 2 for how to reach us.

Some people call snags 'mystery bags', and our test shows it can be true: more than half the butchers who told us they had beef sausages sold us ones with a mixture of meats instead of pure beef.

What's the snag?

WE SPECIFICALLY ASKED BUTCHERS for beef sausages and were often assured that, yes, the sausages were beef — but 13 out of 21 of these butchers sold us something other than pure beef.

While all of them were mainly beef, some also contained mutton, others pork and others both.

So you often can't rely on what the butcher tells you. If you're really looking for a specific type of meat in your sausage you'll have better odds at a supermarket, where you can find them packaged and clearly labelled. Only one of the packages of supermarket sausages was incorrectly labelled: sausages labelled as 'pork' purchased at Woolworths contained pork and beef. So even in supermarkets you don't have an absolute guarantee of getting what the label says.

We also found that a batch of unpackaged sausages, indicated as pure beef and purchased from a Franklins Big Fresh in-store butchery, was in fact beef and pork. Both Franklins and Woolworths say they're going to take steps to avoid contamination between meat species in future.

Anyone for sulphur dioxide?

Other than cooked manufactured meats (such as devon and frankfurters) fresh sausages are the only meat allowed to contain sulphur dioxide. It's added as a preservative, and also helps the sausages retain a fresh, pink appearance. Certain people are sensitive to sulphur dioxide, particularly some asthma sufferers. Those sensitive can experience breathing difficulties, gastric irritation and come up in hives if they're exposed to it.

Our food regulations allow for up to 500 parts per million (ppm) of sulphur dioxide in sausages.

IN BRIEF

- If you don't care what meat's in your sausage, just buy the ones marked 'barbecue' or 'breakfast' or similar (they're usually made from mixed meats, including mutton). But if you're specifically looking for beef you might be disappointed by what you get.
- Reduced-fat sausages are only 8% fat on average, compared with around 18% for other types.
- Some sausages we tested had higher levels of the preservative sulphur dioxide than allowed by food regulations; see *Anyone for sulphur dioxide?*, left.
- The 1995 National Nutrition Survey shows that two- to three-year-olds eat more sausages than they do 'real' meat — definitely a cause for concern considering their fat and salt content.

Our test

We bought 76 lots of sausages from Coles, Woolworths (including Safeway), Franklins Big Fresh and butcher shops in Melbourne, Perth and Sydney. We checked what meat was in them and looked at their fat and sodium content (see the table, right). We also checked how much of the preservative sulphur dioxide the sausages contained.

Five lots of sausages we tested contained higher levels than this (ranging from 510–615 ppm) — three from butcher shops and two from supermarkets (one from Safeway and one from Coles). The rest of the sausages contained 115–500 ppm.

This means that if you're in any way sensitive to sulphur dioxide, you should probably stop eating sausages altogether as you can't be sure how much they contain. While the relevant authorities do some testing of sulphur dioxide levels in sausages, there's no checking program large enough to prevent excessive use altogether.

Don't add salt

Almost all sausages are high in salt and should be avoided if you need to watch your salt intake. The ones we tested contained from 470 mg per 100 g (reduced-fat sausages from Coles) to 1310 mg per 100 g (barbecue sausages from Safeway), with an average of 900 mg per 100 g — that's in a cooked (barbecued) sausage, so that's the amount you'll be eating.

For a typical serve of two sausages, this works out at an average of 45% of the upper daily recommended limit for sodium. That doesn't leave much room for sodium from other foods.

Even though the **WOOLWORTHS Lean Links** brand is reduced-salt (it contains 600 mg per 100 g in a cooked sausage), you get more salt in a serve of these (38% of the upper daily limit) than from some others because they weigh a lot more than average (see *Does size matter?*, right, for more on this).

The fat factor

We barbecued the sausages and then measured the amount of fat in them. We found a big range: from 10% to 26%, with an average of 18%. This means you can get from two teaspoons up to nearly eight teaspoons of fat in a serve of sausages — and bear in mind that a lot of this fat is the 'bad' saturated type (the cholesterol-raising sort). See the table, right, for a comparison of different types of sausages with each other as well as with other meats.

It doesn't seem to matter whether you buy beef, pork, plain or flavoured sausages (we tested some herb and garlic ones from supermarkets) — except for those labelled as lean or the like, all have similar amounts of fat on average. And, in general, it doesn't matter whether you buy at a butcher or a supermarket — when it comes to fat content you've really no way of knowing exactly how much is in the sausages you buy. If you eat them only rarely it's just a blip in your diet, but if you eat them often you should look for leaner ones (see below).

As well as being high in salt and fat, sausages aren't a very good source of iron compared to other meats. See the table, right.

Is there such a thing as a lean sausage?

Reduced-fat sausages are available in a number of supermarkets (Coles, Woolworths, including Safeway; we couldn't find any in Franklins). We had to search quite a bit before finding reduced-fat sausages in butcher shops.

The good news is that all the 'lean' sausages we tested really are leaner: from 5–12% fat, with an average of 8%. If you eat sausages a lot, this type is definitely worth a try.

Grill, bake, barbecue or fry?

We grilled, baked, barbecued, fried and boiled sausages, and measured their fat and sodium content afterwards. Surprisingly enough, however you cook them, you end up with roughly the same amount of fat — it's the fat content of the sausage to begin with that's the important thing.

But we did find a lot less salt in sausages when they were boiled (because it dissolves in the water), so this might be one way of preparing sausages for a casserole, for example (as long as you throw out the water).

The sausage with no meat

There's one widely available brand of packaged vegetarian 'sausage' — **LONGA LIFE Vege-sausage**. We barbecued them along with the other sausages and found they contained 7% fat (similar to the reduced-fat sausages) and 700 mg per 100 g of sodium (which works out at 35% of the upper daily recommended limit in a serve of two sausages). ❑

Comparison of fat, sodium and iron content of a variety of meats, including sausages

Meat (in ascending order of fat,%)	**Serve size**	**Iron:** mg per serve	**Sodium:** mg per serve (range / average)	**Fat:** g per serve (range / average)	**Fat:** % (range / average)
Chicken: breast, baked, without skin	One half (79 g)	0.47	50	4	5
Sausage: lean, barbecued **(A)**	Two sausages (121 g) **(D)**	**(H)**	526–912 / 778	6–12 / 9	5–12 / 8
Beef: minced, fried **(B)**	One cup (170 g)	5.78	107	17	10
Rump steak: grilled, 50% trimmed of fat	One piece (185 g)	6.85	98	23	12
Chicken: breast, baked, with skin	One half (97 g)	0.68	57	12	13
Lamb: chump chop, grilled, 50% trimmed of fat	Two chops (122 g)	4.03	90	16	14
Beef: rib steak, grilled, 50% trimmed of fat	One piece (117 g)	3.28	67	17	15
Sausage: pork, barbecued **(C)**	Two sausages (163 g) **(E)**	2.6 **(H)**	1763–1777 / 1770	20–36 / 28	13–21 / 17
Sausage: beef, barbecued	Two sausages (120 g) **(F)**	2.9 **(H)**	677–1674 / 1117	12–38 / 23	12–22 / 18
Sausage: plain, barbecued	Two sausages (106 g) **(G)**	**(H)**	585–1415 / 983	7–30 / 21	10–26 / 18
Bacon: grilled	Two rashers (42 g)	0.6	940	8	19
Pork: forequarter chop, grilled, 50% trimmed of fat	One chop (124 g)	1.74	93	25	20

Except for sausages, figures are averages from Food Composition Tables. Figures for sausages come from our own testing, and we've included the range of results as well as the average.

(A) Brands tested include: Woolworths and Safeway Lean Link Sausages; Country Lite reduced-fat sausages (from Coles in Sydney); reduced-fat sausages (from Coles in Perth); reduced-fat sausages from butcher shops (as labelled).

(B) You can buy lean mince with less than 10% fat quite easily these days.

(C) These sausages were thick, which accounts for their larger serve size.

(D) 121 g is the average weight; the range we found was 100–148 g.

(E) 163 g is the average weight; the range we found was 156–170 g.

(F) 120 g is the average weight; the range we found was 76–180 g.

(G) 106 g is the average weight; the range we found was 74–132 g.

(H) We didn't measure the iron content of the sausages so we've used figures from Food Composition Tables. There are no figures for lean or plain sausages but levels should be similar to the others.

What's in a sausage?

■ **Meat**: There are regulations about the amount of meat that must be in a sausage and the maximum amount of fat relative to the amount of meat. They're complicated and not written with consumers in mind but, roughly speaking, a sausage has to be at least 50% meat.

Meat scraps can be used in sausages (in the form of meat that's been separated from the bone by some mechanical means), but offal can't.

For the other ingredients, many sausage makers buy a sausage mix (usually a wheat-based cereal with a number of additives), which they combine with their own meat, water and seasoning. Common ingredients include:

■ **Flour** (including rice flour), which acts as a binder, preventing water and fat coming out during cooking.

■ **Protein** (such as gluten, soy protein, hydrolysed vegetable protein) also acts as a binder. It gels when the sausage is cooked and helps to keep the fat and water in.

■ **Salt** to improve flavour, reduce microbial growth and help the proteins take up and hold water and fat.

■ **Mineral salts** (mainly polyphosphates 450, 451 and 452), which help the protein to take up and hold water.

■ **Preservative** (usually 223) to prevent bacterial growth and help retain a fresh pink colour. The term 'sulphur dioxide' is a collective one; as well as being the name for additive 220 it includes the sulphites 221–228).

■ **Flavourings** such as herbs, spices and sugar are sometimes added.

Does size matter?

We found a big variation in the weight of sausages: thin sausages weighed from 37 g (barbecue sausages from a butcher) to 74 g (WOOLWORTHS Lean Links reduced-fat sausages), with an average of 57 g. Thick sausages generally weighed around 80 g each.

How to buy a mobile phone

So you've decided you can't be without mobile communication any more? Well, that was the easy bit. Now you need to know about the systems and carriers available, and what to look out for in a handset and call plan. Find out here.

IN BRIEF

- Check the phone company's coverage of the precise locations you'll most often use the phone.
- Work out when, to where and for how long you make most calls so you can choose a call plan that suits you.

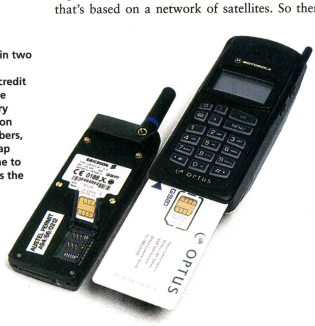
Which system?

Analogue: The analogue network will stop operating in most areas by January 1, 2000. However, it will continue in some rural areas that are poorly covered by the digital networks until the end of 2000.

Digital GSM: The digital networks (see *Which carrier?*, right) comply with an international standard called Global System for Mobile Communications (GSM). They offer better security for phone calls and more features than analogue.

Digital 1800 MHz: This is a technology not available in Australia yet, but already used overseas (for example, in some European and Asian countries). Current GSM networks use frequencies around 900 Megahertz (MHz). A frequency band around 1800 MHz was auctioned by the government to potential mobile phone carriers earlier this year.

Global satellite system: The first of a number of expected carriers has started offering a phone service that's based on a network of satellites. So there's nowhere to hide any more: you can call any spot on earth from any other spot on earth. However, prices are still pretty astronomical.



SIM cards come in two sizes — roughly equivalent to a credit card or a postage stamp. They carry your identification and phone numbers, and you can swap them from phone to phone as long as the size matches.

Which carrier?

Carriers: These are the companies that operate the networks. There are two analogue carriers (Telstra and Optus) sharing one network, and three digital GSM carriers (Telstra, Optus and Vodafone) with competing networks.

If you want to buy a phone or subscribe to a call plan, you can do so at the carriers' own retail outlets, from a service provider (a company that buys carrier services in bulk and then resells them to consumers), or from a mobile phone shop.

Coverage: You need to compare the different call plans available and also check which carrier best covers your area. They all provide coverage maps. However, you should tell the salesperson exactly where you're most likely to use your phone most often (for example, the CBD, or "the southern side of the mountain"). While it may in theory be covered by the network, it might be an area that receives a relatively weak signal (see map, right).

SIM card: Your carrier will provide you with a 'subscriber identity module' (SIM) card — a computer chip with your phone number, a personal identification number (PIN) and features such as memory for phone numbers (see photo, left).

You can install your SIM card in any phone, except a big card in a phone that only accepts small ones. Small cards can be installed in a phone requiring a big one by using an adaptor card. The network identifies the information on the card and charges any calls to your account, according to the call plan you've purchased.

Roaming: The current GSM 900 MHz standard used in Australia is also used in most European, Middle East and Asian countries (except Japan), as well as in parts of Africa and some US states. When

you travel to one of those countries, you can take your phone (or just your SIM card and hire a phone there), and the calls you make are billed to your Australian account (this is called 'roaming').

You'll pay the fees relevant to the country you're in (so calls within that country will be local calls) plus a surcharge, depending on both the overseas and your home network.

Which call plan?

When you buy a mobile phone as part of a call plan, you may get a discount on the phone itself, but the total cost will still include a 12 to 18-month commitment to certain call charges and a fixed monthly access fee.

While you can always upgrade to a more expensive plan, cancelling or downgrading your plan probably means you'll have to pay out the old plan, and in some cases even a penalty. So make sure you choose the plan that suits you best:

- Think about how many calls you're likely to make each day, at what time of the day you're most likely to make them, whether the majority will be local or long-distance, and how long the average call is most likely to be. Try to estimate the monthly costs of this usage pattern with different call plans.
- Make sure you know the minimum cost of the plan over its period — including the handset, connection fee, monthly access fee, call charges and fees for using features such as call diversion or voicemail.
- If you don't want to commit yourself to a call plan for 12 to 18 months, or if you want to have more control over your spending, you can get a prepaid SIM card instead. With these, you pay a one-off fee, consisting of a connection fee and an amount of prepaid calls at fixed rates. The card is usually valid for two to three months, depending on the carrier — if you don't use up your prepaid calls within this time, you lose them.

If you don't have a handset yet, packages are also available that include a phone and a prepaid SIM card, or you can buy a phone outright and use a prepaid SIM card.

Which handset?

- Make sure the phone's comfortable to hold in your hand and to your ear.
- Check for features you're likely to use each day and that they're easy to use (see page 15 for some common features).
- Handsets are becoming smaller. Check the keys are still large enough to be pressed easily, and they're well-labelled and well laid-out. The displayed information should be clear and easy to read.
- Once you've decided on a handset, you need to think about the battery. If weight is important, you may want to get a slimline battery, even though it might need recharging more often. If you're likely to spend a lot of time on the phone, take the longest-lasting battery available (as a general rule, the higher the capacity in milliampere hours (mAh), the longer it lasts).
- If you're buying the handset as part of a call plan, make sure the plan also meets your needs (see above left). Don't get stuck with a snazzy phone but a call plan that's too expensive. ❑

COVERAGE REFERENCES
Hand-Held coverage as of July 1998.
Car kit with external antenna or outside handheld coverage as of July 1998.
Future Coverage planned for Nov/Dec 1998.
No Digital coverage at this time. Mobilesat coverage available.
Metro Zone Boundary
Major roads.
Dual-lane carriageway.
N

Maps courtesy of Optus

The coverage map for Victoria and beyond (above) looks impressive in its reach to populous areas. But you need to see a much more detailed map of the area you'll most use the phone in (top, with Melbourne as the example) to be sure of the level of coverage for your precise location. Coverage can vary for handheld models or those with a car kit only, for example.

Size matters with mobiles — the Motorola StarTac X is about as small as they come.

Mobile phones seem unstoppable, with user numbers ever increasing, handsets becoming smaller and lighter, and ever more features. But which models finished first in our test?

Phone on the run

IN THIS ARTICLE

- Test results for 25 digital models (pages 16 and 17).
- How safe are mobile phones (page 13)?
- Features to look out for (page 15).
- See also the article on how to buy a mobile phone, page 10.

AUSTRALIANS LOVE THEIR MOBILE phones — our ownership rate per capita is one of the highest in the world. About 5.5 million of us carry a mobile on our belt or (more likely with modern digital models) in our pocket.

Together with our European counterparts, CHOICE tested 25 digital models.

How they work

A mobile network is made up of a series of base stations that send and receive the radio signals used by mobile phones. The area covered by one base station is called a 'cell', with cells arranged so that they overlap slightly.

If your phone's switched on, it connects to the base station with the strongest signal, telling it where you are so it can direct calls to you. When you move to an area covered by another cell, the network automatically switches you to it.

Obstructions such as buildings or mountains can shade certain areas, which means they only receive a weak network signal. Your phone's sensitivity will determine how well it works in such areas.

If you're likely to use your phone in weak network conditions (see *Which carrier?*, page 10), look for a model with a high sensitivity score (see the table on pages 16 and 17). Several models didn't cope very well with a weak signal.

How well they work

Under normal conditions, most of the tested phones rated good to very good for intelligibility and sound quality, except the **NOKIA 5110** and **8810** for incoming calls, and the **PANASONIC G450** for outgoing calls.

If there's background noise, the sound quality generally suffers: under these circumstances, incoming calls were of poor quality with the **SIEMENS S10** and **NOKIA 6110**, and only the **NOKIA 8810** and the **PHILIPS Diga** could handle outgoing calls well, with a number of models performing poorly.

How long the batteries last

The batteries tested were the standard ones supplied with the phones in Europe at the time the test samples were bought. While most of the batteries supplied with the phones in Australia are the same, not all of them are:

- You sometimes have a choice of batteries and don't necessarily have to buy the standard one.
- Manufacturers frequently change their batteries' specifications.

That's why we haven't included a battery performance score in our overall score. But as a guide, we've included in the table the results of the tests for charging time, standby time and time in use with the batteries supplied.

- Charging times varied from a bit over one hour

(ALCATEL One Touch View and SIEMENS SL10) to more than four hours (NOKIA 6110 and SONY CMD-X2000).

■ The NOKIA 5110 and 6110 stay on standby for more than 200 hours — by far the longest of all the tested models. However, a phone's software has a big influence on battery life. The same battery used in a phone with less 'intelligent' software may not last as long.

The software is also the reason why a model with a long standby time can run out of power relatively quickly when in use, and it may be the reason why the two battery types used in modern mobile phones (lithium-ion and nickel metal hydride) performed much the same. However, lithium-ion batteries are generally lighter.

■ The SIEMENS S10 Active lasted an impressive 53 hours in our time-in-use test. We think anything above 35 hours is very good, anything less than 20 hours rather poor.

How easy to use they are

The SIEMENS SL10 was the easiest model to use in our test, the ALCATEL One Touch Com and SHARP MC-G1 the most difficult (see photo, below right). The latter two are similar, with large touch-screen displays, a range of electronic organiser functions, a built-in modem and email software. Their menus and some daily-use functions are quite difficult to use.

Overall, we found the biggest differences in two assessments:

■ On some models, answering an incoming call simply means pressing any button on the keypad. On others, you need to press a particular key and pull out the antenna — a routine some people may find annoying.

■ With mobile phones becoming smaller and smaller, some of the displays have become too small and difficult to read.

WHAT TO BUY

equal	MOTOROLA StarTac X	$1089
	SIEMENS SL10	$719
	SONY CMD-X2000	$615
equal	SIEMENS S10	$719
	ALCATEL-HD1 One Touch Easy	$330
	ALCATEL One Touch Club	$479
	MOTOROLA cd928	$649

These prices are the full price; with a call plan you'll usually get a large discount on the cost of the phone.

Are they safe?

A mobile phone's electromagnetic radiation can interfere with electronic equipment. So switch it off when you're in an aircraft or a hospital, and ask your doctor's advice about using one if you have a heart pacemaker.

You should also switch it off in petrol stations. While the risk of its radiation igniting fuel fumes is considered minimal, there's the chance of the battery becoming dislodged and causing a spark (see CHOICE, October 1998, page 6).

Though some studies suggest a link between the use of mobiles and diseases such as brain tumors, it's inconclusive. The Federal Government recently funded a number of new research projects into this issue.

To be on the safe side:

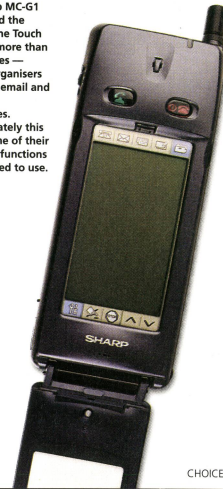
■ Use a regular phone whenever possible.

■ Digital mobiles vary their power output depending on the signal strength they get. So try to minimise using one in weak network conditions (for example, indoors, or on a bus or train).

■ Don't carry your mobile close to your body when it's on standby.

A phone's radiation falls off sharply with distance, so try to hold it a few centimetres away from your head while on a call, or invest in a hands-free kit (below).

The Sharp MC-G1 (right) and the Alcatel One Touch Com are more than just phones — they're organisers too, with email and modem capabilities. Unfortunately this made some of their everyday functions complicated to use.



Battery recycling trial

The Australian Mobile Telecommunications Association and the NSW Government recently started a battery recycling trial in Sydney. Participating manufacturers include Alcatel, Ericsson, Motorola, Nokia, NEC, Philips and Panasonic.

If you have a mobile phone from one of these brands, you can return the spent battery (NiCad, NiMH and Li-Ion) to an Optus, Telstra or Vodafone retail outlet, or some mobile phone dealers. The collected batteries will be recycled in a Victorian facility.

If successful, the scheme is supposed to be offered nationwide in the second half of 1999.

The models in the *What to buy* list are profiled in rank order from top to bottom. Usually you'll buy a mobile phone for a discounted price as part of a call plan. However, you may prefer to pay its full price without locking yourself into a call plan contract. The prices shown are the full price without a plan, based on nationwide checks in November 1998.

MOTOROLA StarTac X

Price: $1089

Good points

- Excellent in weak network conditions.
- Good for intelligibility and sound quality.
- Robust — not damaged at all in the tumble test.
- Reasonable standby time and time in use with the tested battery (see note 6, page 16, for details).
- Basic functions very easy to use.
- The smallest and lightest phone in the test.
- Can be connected to a PC card, so you can use it to send and receive email and faxes.

Bad points

- Short battery warning time (less than two minutes).
- Manual not very clear.

SIEMENS SL10

Price: $719

Good points

- Good for intelligibility and sound quality.
- Very easy to use, particularly the basic functions.
- Robust — not damaged at all in the tumble test.
- Has a colour display.
- Very short charging time with the tested battery.

Bad points

- Short battery warning time.
- Relatively short standby time and very short time in use with the tested battery.

SONY CMD-X2000

Price: $615

Good points

- Good for intelligibility and sound quality.
- Robust — not damaged at all in the tumble test.
- Very good in weak network conditions, particularly for outgoing calls.
- Long standby time and time in use with the tested battery.
- Can be connected to a PC card.

Bad points

- Very long charging time with the battery tested.
- Short battery warning time.
- Fairly heavy.

SIEMENS S10

Price: $719

Good points

- Good for intelligibility and sound quality.
- Robust — not damaged at all in the tumble test.
- Very good in weak network conditions, particularly for outgoing calls.
- Long standby time and time in use with the tested battery.
- Very good instructions.
- Can be connected to a PC card.
- Colour display.

Bad points

- Intelligibility and sound quality of incoming calls is relatively poor when there's background noise.
- Short battery warning time.
- Fairly heavy.

ALCATEL HD1 One Touch Easy

Price: $330

Good points

- Very good for intelligibility and sound quality.
- Robust — not damaged at all in the tumble test.
- Long standby time and time in use with the tested battery.
- Very good instructions.
- Good battery warning time.
- Can use standard AA batteries, which is helpful if you can't recharge the regular battery.
- Can be connected to a PC card.

Bad points

- Not as easy to use as the other recommended models.
- Fairly heavy.

ALCATEL One Touch Club

Price: $479

Good points

- Very good for intelligibility and sound quality.
- Robust — not damaged at all in the tumble test.
- Long standby time and relatively long time in use with the tested battery.
- Good battery warning time.
- Can use standard AA batteries.
- Can be connected to a PC card.

Bad points

- Not as easy to use as the other recommended models.

MOTOROLA cd928

Price: $649

Good points

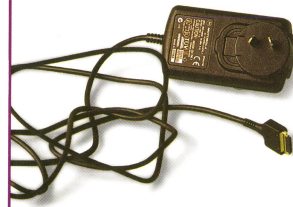
- Good for intelligibility and sound quality.
- Robust — not damaged at all in the tumble test.
- Basic functions very easy to use.
- Long standby time and time in use with the tested battery.
- Can be connected to a PC card.

Bad points

- Short battery warning time.
- Manual not very clear.

Features they all have

- Redial memory for at least the last five phone numbers dialled.
- Short message service (SMS) — you can receive brief messages that are displayed on the screen (for example, your provider telling you about a message waiting in your voice-mailbox), and send messages to other mobile phones.
- Muting (except the **ALCATEL One Touch View**, **PANASONIC G450** and **NOKIA 5110**) — you can switch off the microphone, so the person at the other end can't hear what you say to someone else with you.
- At least eight one- or two-button fast-dial numbers.
- Battery capacity status information.
- Different ringing sounds and volume settings.
- Keypad locking.
- Menu available in several European languages.



You don't have to take the battery out to charge it: either the charger plugs directly into the phone (as pictured above) or you put the whole phone into the charging station.

The small and light Motorola StarTac X is convenient and sexy but still easy to use. Make sure other small phones still have readable displays and usable controls.

	Brand / model (in rank order)	Manufacturer / distributor	Origin	Price ($)*	Warranty (years)	Dimensions (H x W x D; mm)**	Weight (g) ‡	1 Antenna type	2 SIM card type	3 Interval beep timer	4 Vibrat featur
	MOTOROLA StarTac X	Motorola	China	1089	1	95 x 60 x 24	95	E	Small	✓	✓✓
equal	**SIEMENS** SL10	Siemens	Germany	719	ns	139 x 50 x 26	140	F	Small	✓	**(E)**
	SONY CMD-X2000 **(A)**	Sony	Germany	615	1	147 x 49 x 27	195	E	Small	✓	**(E)**
	SIEMENS S10	Siemens	Germany	719	ns	147 x 49 x 29	195	F	Small	✓	**(E)**
equal	**ALCATEL** HD1 One Touch Easy **(A)**	Alcatel	Europe **(C)**	330	1	133 x 52 x 29	215	E	Small	✓	
	ALCATEL One Touch Club **(A)**	Alcatel	Europe **(C)**	479	1	133 x 58 x 32	170	E	Small	✓	
	MOTOROLA cd928	Motorola	China	649	1	131 x 56 x 27	145	F	Small	✓	✓✓
	ALCATEL One Touch Pocket	Alcatel	Europe **(C)**	885	1	117 x 63 x 23	130	E	Small	✓	✓
	ERICSSON SH 888	Ericsson	Finland	899	ns	130 x 49 x 26	195	F	Small	✓	
equal	**PHILIPS** Diga	Philips	Singapore	399	1	148 x 61 x 23	190	F	Big		
	PHILIPS Twist	Philips	Singapore	329	1	145 x 61 x 26	175	F	Big		
	SAMSUNG SGH-250 **(B)**	Samsung	Korea	549	1	124 x 49 x 27	180	E	Small	✓	✓
	ALCATEL One Touch Com	Alcatel	Europe **(C)**	1199	1	151 x 63 x 26	240	E	Small	✓	
equal	**SHARP** MC-G1	Sharp	France	1149	1	151 x 63 x 26	240	E	Small	✓	
	ALCATEL One Touch View	Alcatel	Europe **(C)**	499	1	133 x 58 x 32	170	E	Small	✓	
equal	**NOKIA** 6110	Nokia	Korea	1089	1	130 x 47 x 32	170	F	Small		**(E)**
	PHILIPS Genie	Philips	**(D)**	749	1	119 x 56 x 22	100	E	Small		**(E)**
	SIEMENS S10 Active	Siemens	Germany	719	ns	159 x 50 x 29	200	E	Small	✓	**(E)**
	PANASONIC G600	Panasonic	UK	879	1	133 x 46 x 24	130	F	Small		✓
	NOKIA 8810	Nokia	Korea	2200	1	107 x 46 x 20	115	I	Small		✓
	ERICSSON GF 788	Ericsson	Sweden	969	ns	105 x 49 x 24	140	F	Small		
	PANASONIC G450	Panasonic	UK	495	1	141 x 46 x 30	175	F	Small		
	NOKIA 5110	Nokia	Korea	639	1	132 x 48 x 31	170	F	Small		**(E)**
	ERICSSON GA 628	Ericsson	Sweden	425	ns	131 x 49 x 32	215	F	Small		
	ERICSSON GH 688	Ericsson	Sweden	649	ns	130 x 49 x 28	165	F	Small		

ns Not stated.

* Prices are based on nationwide checks in November 1998; you'll probably pay much less if you buy the phone as part of a call plan.

** The dimensions may be different when a different battery is used.

‡ Rounded to the nearest 5 g. The weight may be different when a different battery is used.

(A) According to the manufacturer, this model will be discontinued in February 1999.

(B) According to the manufacturer, this model has been discontinued, but may still be found in stores.

(C) 'Europe' is the most specific information available on the origin of Alcatel phones.

(D) France or Singapore.

(E) This feature isn't available with the tested standard battery, but with an optional battery.

1 Antenna type

An 'E' indicates an extendable antenna, an 'F' that the antenna has a fixed length, and an 'I' that the model has an internal antenna.

2 SIM card type

Your subscriber identity module (or SIM) card identifies you to the network you're connected with — no matter what phone you're using. For example, when you're travelling, you can take your SIM card with you and rent a phone at your destination.

SIM cards come in two sizes: a big card the size of a credit card or a small card the size of a postage stamp (see the photo on page 10).

3 Interval beep timer

Models with a tick beep at certain intervals (either preset or selected by you) during a call, so you can keep track of the time you spend on the phone.

4 Vibration feature

One tick indicates you can set the phone to vibrate instead of ring, which can be useful — for example, when you're in a meeting or restaurant. However, you'll need to carry the phone on your body to be able to feel the vibrations.

Models with two ticks will switch from vibrating to ringing if you don't answer the call after a certain time.

5 Battery charging time

The results are rounded to the nearest five minutes. They may be different for a different battery (see page 12 for more information).

6 Standby time / Time in use

Both tests depend on the type of battery and the network conditions. So the results might be different if the tests were carried out with a different battery or in a different location, which is why we've listed the tested times rather than

	6	6	7	8	9	10	11		
tery rging time utes)	Standby time (hours)	Time in use (hours)	Intelligibility / sound quality score (%)	Sensitivity score (%)	Ease of use score (%)	Tumble test score (%)	Overall score (%)	Brand / model (in rank order)	
0	64	30	78	100	78	100	86	**MOTOROLA** StarTac X	
5	37	17	82	80	84	100	84	**SIEMENS** SL10	equal
5	81	41	82	90	76	100	84	**SONY** CMD-X2000 **(A)**	
5	82	39	74	90	78	100	82	**SIEMENS** S10	
5	106	37	92	80	64	100	81	**ALCATEL** HD1 One Touch Easy **(A)**	equal
5	96	33	92	80	62	100	81	**ALCATEL** One Touch Club **(A)**	
0	108	42	72	80	82	100	80	**MOTOROLA** cd928	
5	79	23	76	90	64	100	78	**ALCATEL** One Touch Pocket	
0	64	38	74	80	74	100	78	**ERICSSON** SH 888	
0	85	22	90	80	60	80	78	**PHILIPS** Diga	equal
0	106	34	78	80	70	100	78	**PHILIPS** Twist	
0	39	22	82	80	76	60	78	**SAMSUNG** SGH-250 **(B)**	
0	43	21	88	90	48	80	76	**ALCATEL** One Touch Com	equal
0	43	21	88	90	48	80	76	**SHARP** MC-G1	
5	71	21	78	100	62	40	75	**ALCATEL** One Touch View	
5	209	38	64	80	74	100	75	**NOKIA** 6110	equal
5	91	18	76	85	72	60	75	**PHILIPS** Genie	
5	124	53	74	70	70	100	74	**SIEMENS** S10 Active	
5	75	26	88	40	72	100	72	**PANASONIC** G600	
5	137	25	70	40	82	100	69	**NOKIA** 8810	
5	46	23	86	40	60	100	68	**ERICSSON** GF 788	
5	60	28	76	40	74	80	67	**PANASONIC** G450	
5	229	45	62	60	64	100	66	**NOKIA** 5110	
5	59	31	68	55	60	80	64	**ERICSSON** GA 628	
5	39	19	78	40	66	60	63	**ERICSSON** GH 688	

included them in the overall comparative score.

■ **Standby time:** This tells you how long the supplied battery lasted when we had the phone switched on (ready to receive calls), but didn't use it.

Some models stay alert for more than 200 hours, which is impressive. However, much more important is how much use you get per battery charge (time in use).

■ **Time in use:** This tells you how long the supplied battery lasted in our simulated usage cycle: for 10 hours per day we made one three-minute call per hour, and left the phone on standby for the time between calls. We switched the phone off for the remaining 14 hours.

This test gives a more meaningful and realistic comparison than the 'maximum talk time' that's often quoted.

7 Intelligibility and sound quality score

For both incoming (testing the phone's earpiece) and outgoing calls (testing the phone's microphone), a user panel assessed the following:

■ Intelligibility of words under quiet conditions.

■ Intelligibility of words with surrounding noise.

■ Sound quality (for example, how easy it was to recognise somebody's voice, or whether there was any echo).

8 Sensitivity score

In 18 locations with weak network conditions, both the sender and the receiver assessed the sound quality of outgoing and incoming calls.

9 Ease of use score

A user panel assessed the following:

■ Instruction manual (for completeness and clarity).

■ Daily use (for example, ease of answering an incoming call, redialling, storing a number into memory or receiving a short message).

■ Ergonomics (for example, handling during a call, use of the keypad and reading the display).

10 Tumble test score

We put the phones in a barrel with a diameter of 80 cm. We then turned the barrel, simulating falls, say, from a table or out of a shirt pocket.

After every five turns, the phones were checked for damage, and we carried out a maximum of 50 falls. This is a fairly severe test. However, while some models were slightly damaged, all were still usable — except the **ALCATEL One Touch View**, which suffered a broken display.

11 Overall score

The overall score is a combination of intelligibility/sound quality, sensitivity, ease of use and the tumble test, weighted as follows:

■ Intelligibility/sound quality: 35%.

■ Sensitivity: 25%.

■ Ease of use: 30%.

■ Tumble test: 10%.

Revenge of the killer ... *garbage bags?*

It almost seems you can't turn on the TV these days without being subjected to another ad for a must-have antibacterial something or other. We go beyond the hype and give you the facts.

IN BRIEF

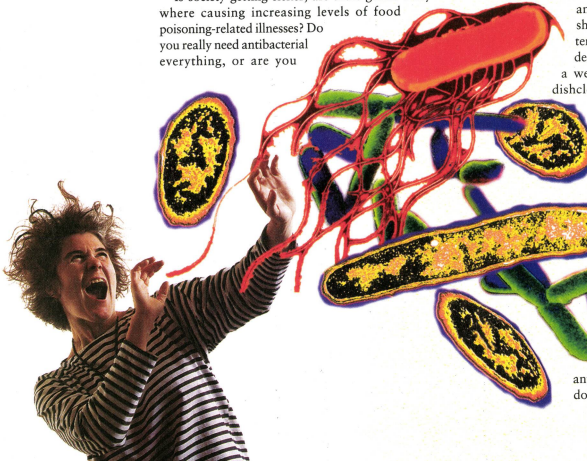
- You don't need to buy special antibacterial products — simple commonsense hygiene is perfectly adequate.
- Find out why you can — and even should — do without the antibacterial products that are being promoted so heavily.

YOUR HOME MIGHT LOOK PERFECTLY clean, but is it *really*? Not if you believe the ads. Because — shock, horror — it turns out your home is swarming with an invisible menace. Could this be the end of civilisation as we know it?

Enter the swashbuckling hero in the form of multinationals marketing antibacterial everything: cleaning liquids, cloths, dishwashing liquid, chopping boards, laundry powder, pillows, toothbrushes, liquid hand wash — even garbage bags!

The hygiene hype and antibacterial propaganda increasingly bombarding the media send a simple message: if you don't use the product, you're compromising the health of yourself and your family.

Is society getting sicker; are there germs everywhere causing increasing levels of food poisoning-related illnesses? Do you really need antibacterial everything, or are you worrying unnecessarily — and wasting your time and money?



Good germs, bad germs

Germs are all around us, inside us and on us. The air you're breathing now probably contains millions. Billions of bacteria live and breed on our skin and in our mouths, noses and digestive systems. Most of them aren't a problem. Some are necessary and do good, like intestinal flora that aid digestion and stimulate the immune system. Some are not so good, like the bacteria that cause tooth decay. But as to the latter, there are simple hygiene methods for dealing with them.

Of the other bacteria we come into contact with — so-called transient bacteria — most don't do us any harm. Their life is pretty short, and our immune systems have developed ways to deal with them. For instance, a well-publicised US study of dishcloth contamination found bacterial levels of up to 26 million per millilitre of water in the cloth — yet no-one was getting sick from them.

But wait! There's more

Maybe you'll decide to err on the side of caution and use antibacterials anyway — after all, they can't do any harm, can they?

The short answer is yes, they can, and you'd be better off without them for two reasons: exposure to a range of bacteria can help build your immunity — which is a good thing; and exposing bacteria to antibacterial agents can result in resistant bacterial populations — not a good thing.

Eat dirt, baby!

Every day we come into contact with billions of microbes and, as much as we try, we can barely make a dent in their numbers. But exposure to a broad range of organisms keeps your immune system ticking over.

Attempting to eliminate microbes from your environment is not only futile but undesirable. Some scientists even suspect that the rapid rise of asthma and allergies in the western world is due to our obsession with hygiene and cleanliness. While you won't do yourself any favours rummaging around in a bin of hospital waste, there's nothing wrong with a bit of ordinary dirt.

Sub-lethal weapons

Giving surfaces a quick wipe with disinfectant or using an antibacterial cloth may inhibit bacterial growth, but won't necessarily kill them. And the temporarily disabled bacteria come back meaner than ever, because giving bacteria what's called a sub-lethal injury can make them resistant to future attack.

Some health authorities are expressing concern that the overuse of antibacterials might lead to strains of resistant 'super bugs'. But the resistance may spread beyond the chemical actually used. Last year, for example, researchers in the US raised a strain of *E. coli* on nutrient spiked with a common household disinfectant, and found its resistance to antibiotics such as tetracycline and ampicillin had increased.

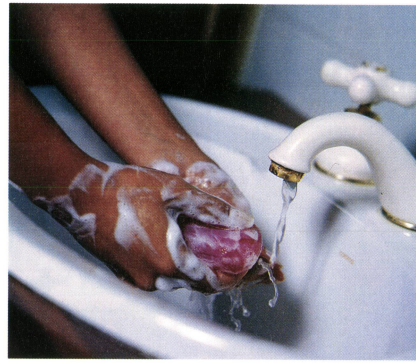
The rapid increase in antibiotic-resistant bacteria is already a serious public health issue in its own right. See *Antibiotic resistance — revenge of the bugs*, CHOICE, April 1998, for more on this issue.

Sensible hygiene practices

The key to avoiding many bacteria-related illnesses is to prevent cross-contamination. And CHOICE is concerned that people will rely on antibacterial products to compensate for poor hygiene practices.

The bacteria we should be careful about are certain strains of *Escherichia coli* (*E. coli*, which comes from faecal matter), salmonella and campylobacter (from raw meat, particularly chicken), listeria (particularly in dairy products and salads) and *Staphylococcus aureus* (from humans — coughing, sneezing and skin infections). These are the bacteria commonly targeted by antibacterial products, but there are other ways to control them.

The greatest risk of illness is from cross-contamination — for instance, cutting up salad on the same unwashed chopping board you used to cut raw chicken. Or not washing your hands properly after going to the toilet. But cross-contamination can be readily avoided by following sensible hygiene practices.



You don't need antibacterial soap to keep your hands acceptably clean — ordinary soap and water do the job perfectly well.

The most important thing you can do to prevent disease is to wash your hands often and thoroughly with soap and water. Wash them before you start preparing food, wash them after going to the toilet, playing with the pet, taking out the garbage, gardening and handling raw meat.

Pathogens already in raw food — like salmonella and campylobacter in chicken — are readily killed by proper cooking. For useful advice on safe food purchase, storage and handling, see *Further information*, below.

(continued overleaf)

Further information

Good food hygiene advice can be found in the following CHOICE publications:

- *Food poisoning — could it happen to you?* CHOICE, September 1997. Contact CHOICE Consumer Services on (02) 9577 3399 to order this issue for $6 ($16 for non-subscribers).
- *CHOICE Factsheet: Keeping food fresh* (write to CHOICE Consumer Services at 57 Carrington Road, Marrickville 2204, and enclose a stamped, business-size envelope).

Note: Both of these are also on CHOICE's website. Go to: www.choice.com.au, click on the 'food' button, and follow the links.

From kill to overkill

We went shopping for antibacterial products, and these are some of the things we found. While we can't tell you now if they really do kill bacteria (we plan to test some of them soon), the question is: do you really need them?

Hand wash

Your hands are always covered with bacteria, most of them harmless.

The verdict: Unnecessary. If you do use antibacterial hand wash, make sure you disinfect the tap handle before you turn it off, or you'll just get your old germs back.

Our advice: Washing your hands thoroughly with soap and water will dislodge potentially harmful bacteria like salmonella and *E. coli* (see *All in a lather*, CHOICE, June 1998).

Cloths and sponges

Some claim to kill bacteria in the cloth, while others merely inhibit their growth. Either way, your cloth is supposed to stay hygienic and fresh-smelling.

The verdict: While it may smell fresher for longer than a regular cloth, it won't necessarily kill all bacteria in it, and won't disinfect surfaces.

Our advice: For cleaning the kitchen bench, stovetop, microwave and so on, use normal cloths — rinse them out and allow to dry between uses, and replace them regularly. For 'dirty' jobs, like spills on the floor, use a mop or a paper towel (cheap paper towels made from recycled paper are perfectly adequate, and best for your wallet and the trees).

Food area cleaner

One manufacturer commissioned a bacteriological survey of domestic kitchens prior to launching its antibacterial food area cleaner, and found levels of bacteria were, in fact, relatively low. It then explained these levels were likely to be an underestimation because bacteria don't readily survive on dried working surfaces.

The verdict: And the point of the antibacterial is ...? The manufacturer claims its product adds 'extra' protection to preparation surfaces, but acknowledges there is no subsitute for good hygiene practices.

Our advice: It's important to keep food preparation areas clean — you don't want to create a paradise for bacteria. If you're particularly worried about germs, just use mild bleach.

Dishwashing liquid

Antibacterial dishwashing liquid claims to "remove germs from dishes, leaving them hygienically clean". These germs, presumably, come from the food you've just eaten.

The verdict: Unnecessary. Plain soap or detergent is fine.

Our advice: If you think there's a problem with bacterial contamination of your eating utensils, prevent it from happening in the first place — see *Sensible hygiene practices*, on page 19.

When washing up, use warm water, regular detergent and a nylon-bristled brush (rinse it out and let it dry afterwards).

Chopping board

Some chopping boards are impregnated with an antibacterial agent, and claim to prevent the growth of pathogens.

The verdict: Why bother? While it's true that chopping boards can be a major source of cross-contamination, especially if you're handling raw meat, the antibacterial ones still have to be washed and dried carefully. And the instructions on the one we bought suggested using a separate board for raw meat.

Our advice: Use a regular chopping board, but clean and dry it thoroughly after cutting raw meat. Or get two boards: one for raw meat and one for other foods — again, wash and dry them thoroughly. Plastic and glass boards can go in the dishwasher.

Toilet disinfectant

Germs can breed in the toilet, but they don't leap out from underneath the toilet rim to infect you.

The verdict: Basically useless (unless you feel around the inside of the toilet without washing your hands afterwards).

Our advice: Just keep your toilet looking clean — there's no need for heavy-duty disinfectant.

Garbage bags

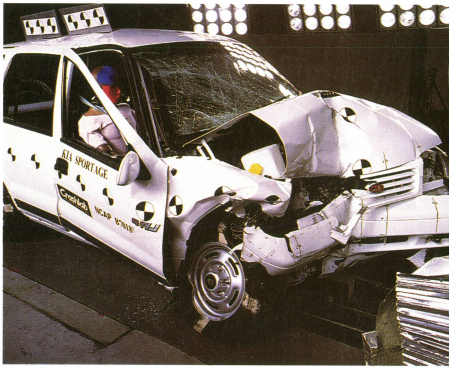
Antibacterial garbage bags claim to attack germs on the bag surface.

The verdict: Bizarre.

Our advice: Washing your hands with soap and water after handling the garbage bag (like when you take out the garbage) will dislodge any potentially harmful bacteria like salmonella and *E. coli*.

Crash test update

Accidents happen. The latest crash tests measured the mettle of four-wheel drives and small cars at protecting you from their results.



The Kia Sportage was the worst of the four-wheel drives in the latest crash tests, scoring 'poor' overall for the protection it provides for occupants.

IT'S ESTIMATED THAT THE CHANCES of having a serious frontal crash are about one in 160 during the lifespan of a vehicle that travels 100,000 km. But most of us don't need to see statistics to know that safety — which includes crashworthiness — should be an important consideration when buying a car.

The most recent New Car Assessment Program (NCAP) crash tests evaluated small cars and four-wheel drives.

The tests

The NCAP tests are designed to assess the crashworthiness of vehicles involved in a severe crash involving the front of the car. A 1991 Monash University study showed that accidents like these make up about 60% of the total number of crashes that cause serious or fatal injuries. Crashworthiness is based on results from:

- A **full-frontal crash**, where the vehicle is slammed head-on into a solid concrete barrier at 56 km/h. The force of impact is absorbed by the full width of the front of the vehicle.
- An **offset crash**, where 40% of the vehicle's front (on the driver's side) is crashed into a barrier with a crushable aluminium face.

Results for small cars

There hasn't been much change since the last crash test of small cars in 1997 — most of the cars evaluated were still either marginal or poor overall, and only five cars were considered acceptable.

- Of those five, all but one — the **MITSUBISHI Mirage** without airbags — received a 'good' rating for protection from serious head injury. The other four cars, including a variant of the **MITSUBISHI Mirage**, have either a driver airbag or driver and passenger airbags.
- While information from the Federal Office of Road Safety shows an airbag usually at least halves the risk of serious head injury (compared to the same model without an airbag), it doesn't guarantee a minimum level of safety. For example, both the **DAIHATSU Sirion** and the **HOLDEN Barina** have driver and passenger airbags, but in the NCAP assessment both cars still did a poor job of protecting occupants from serious head injury.

Four-wheel drive results

The latest four-wheel drive crash tests found little improvement since the 1994 NCAP test. For the most part, the tested vehicles are either marginal or poor when it comes to structure, restraints and head protection. The **TOYOTA RAV4** was an exception; its structure was deemed 'acceptable'.

- None of the four-wheel drives tested comes equipped with airbags as a standard feature. The models tested all rated 'poor' for protection from serious head injury. The **KIA Sportage** doesn't even have airbags available as an option in Australia.
- Some four-wheel-drives have a relatively stiff front structure, but that's not necessarily an advantage in a crash. Compared to some other passenger vehicles that are designed with a 'crumple zone' to partially absorb the shock of the crash, these rigid and rugged vehicles can effectively transfer more impact force to the occupants.

IN BRIEF

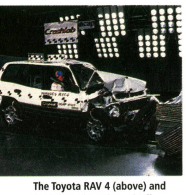
- Small cars are still not very safe in a crash — the best overall result from the latest crash tests is only 'acceptable'.
- The four-wheel drives tested rated only 'marginal' or 'poor' overall for safety in a crash. Models with a stiff front structure, rather than a 'crumple zone' to help absorb impact, can effectively transfer more impact force onto the occupants.

CRASH TEST UPDATE

Make / model (in overall performance order within categories)	1 Weight (kg)	1 Airbag	2 Structure	3 Restraint system	4 Headrest / head restraint design
Small cars (frontal crash at 56 km/h, offset crash at 64 km/h), tested in November 1996, July 1997 and October 1998					
MITSUBISHI Mirage, 1996 on (with airbags)	970	D, P	✓✓	✓✓✓	✓
TOYOTA Starlet, 1996 on (with airbags)	880	D, P	✓✓	✓	✘
HONDA Civic, 1995 on	1100	D	✓	✓✓	✘
FORD Laser, 1996 on	1100	D	✘	✓✓✓	✘
MITSUBISHI Mirage, 1996 on (no airbags)	960		✓✓	✓✓	✓
TOYOTA Starlet, 1996 on (no airbags)	870		✓✓	✓	✘
DAIHATSU Sirion, 1998 on	860	D, P	✓✓	✓	✓✓
KIA Mentor, September 1998 on **(A)**	1120		✓✓	✓	✓
DAIHATSU Charade, 1996 on (with airbag)	880	D	✘	✓	✘
DAIHATSU Charade, 1996 on (no airbag)	880		✘	✓	✘
NISSAN Pulsar, 1995 on	1080	D	✘	✓	✘
MAZDA Metro 121, 1997 on	950	D	✘	✓	✘
HOLDEN Barina, November 1995 on **(B)**	950	D, P	✘	✓	✓✓
FORD Laser, 1996 on	1100		✘	✓	✘
DAEWOO Lanos 3-door, 1997 on	1060		✘	✓	✘
SUZUKI Baleno, 1996 on	1010		✘	✘	✓
DAEWOO Nubira, 1997 on	1220		✘	✘	✓
Small cars (frontal crash at 56 km/h, offset crash at 60 km/h), tested in October 1996					
TOYOTA Corolla, 1996–98 **(C)**	1070	D	✓	✓✓✓	✘
Four-wheel drives (frontal crash at 56 km/h, offset crash at 64 km/h), tested in April 1998					
TOYOTA RAV4, 1997 on	1330		✓✓	✓	✓
TOYOTA Prado, 1997 on	2020		✓**(D)**	✓	✓
KIA Sportage, 1997 on	1510		✓	✘	✓✓

(A) The seatbelt system was upgraded in vehicles built from September 1, 1998. Earlier vehicles may not provide the same protection.
(B) Dual airbags became standard in November 1995. Earlier vehicles may not provide the same protection.
(C) Australian-built models only.
(D) In the offset test there was a substantial leak from the fuel tank.
D Driver's side.
P Passenger's side.

✓✓✓ = good
✓✓ = acceptable
✓ = marginal
✘ = poor



The Toyota RAV 4 (above) and Prado rated just 'marginal' overall — the best any four-wheel drive achieved in this test.

Crash stats

A study by the NRMA, RACV, RTA and VicRoads examined data from 289,000 crashes involving vehicles manufactured between 1982 and 1994. For particular models of passenger vehicles, as well as for general vehicle categories, the study calculated the risk of driver death or hospitalisation for every 100 drivers of that model involved in a crash. The average for all models and vehicle categories was 2.59 drivers per 100.

For four-wheel drives, the likelihood of the driver being killed or seriously injured in a crash was close to this overall average, which puts these vehicles just about on a par with medium-size cars. Large and luxury cars had the lowest injury average.

In terms of the probability of driver death or serious injury, small cars had a higher rate than the overall average. In fact, only passenger vans had a greater probability than small cars.

In more recent crash tests, the offset crash has been conducted at 64 km/h. In past tests, the vehicle's speed was 60 km/h, and the TOYOTA Corolla tested this way is still a current model, so we've included it in the table. While these results are not directly comparable, it's safe to assume that if a vehicle tested at the higher speed achieves the same or better results as one tested at the lower speed, it should provide better protection from injury.

1 Weight
Crash test results are only comparable for vehicles of similar size and weight. As a guide, cars weighing within 230 kg of each other can be considered directly comparable.

2 Structure
This rating assessed how the passenger compartment and the roof kept their shape in a collision, and whether the steering column, pedals, dashboard and floor panels were pushed excessively inwards. It also looked at whether the doors remained closed during a crash, and whether they were able to be opened afterwards.

5 Protection from serious injuries to head	5 Protection from serious injuries to chest	5 Protection from serious injuries to upper legs	5 Protection from serious injuries to lower legs	6 Overall performance	Make / model (in overall performance order within categories)
✓✓✓	✓✓✓	✗	✗	✓✓	**MITSUBISHI** Mirage, 1996 on (with airbags)
✓✓✓	✓✓✓	✓✓✓	✗	✓✓	**TOYOTA** Starlet, 1996 on (with airbags)
✓✓✓	✓✓	✓✓✓	✗	✓✓	**HONDA** Civic, 1995 on
✓✓✓	✓✓✓	✗	✓	✓✓	**FORD** Laser, 1996 on
	✓✓✓	✗	✗	✓✓	**MITSUBISHI** Mirage, 1996 on (no airbags)
	✓✓	✓✓✓	✗	✓	**TOYOTA** Starlet, 1996 on (no airbags)
	✓✓✓	✓✓✓	✗	✓	**DAIHATSU** Sirion, 1998 on
	✓	✗	✗	✓	**KIA** Mentor, September 1998 on **(A)**
✓	✓✓✓	✓	✗	✓	**DAIHATSU** Charade, 1996 on (with airbag)
✓	✓✓✓	✓	✗	✓	**DAIHATSU** Charade, 1996 on (no airbag)
	✓✓✓	✓	✗	✓	**NISSAN** Pulsar, 1995 on
	✓✓	✗	✗	✓	**MAZDA** Metro 121, 1997 on
	✓✓	✓	✗	✗	**HOLDEN** Barina, November 1995 on **(B)**
	✓✓✓	✗	✓	✗	**FORD** Laser, 1996 on
	✓✓	✓✓	✗	✗	**DAEWOO** Lanos 3-door, 1997 on
	✓✓	✓✓✓	✗	✗	**SUZUKI** Baleno, 1996 on
	✓✓✓	✓✓	✗	✗	**DAEWOO** Nubira, 1997 on
✓	✓✓✓	✓✓✓	✓✓✓	✓✓	**TOYOTA** Corolla, 1996–98 **(C)**
	✓✓	✓✓✓	✗	✓	**TOYOTA** RAV4, 1997 on
	✓✓✓	✓✓✓	✗	✓	**TOYOTA** Prado, 1997 on
	✓✓	✓✓✓	✗	✗	**KIA** Sportage, 1997 on

3 Restraint system

The seatbelt, seat and, if applicable, the airbag were assessed. The restraint system is supposed to keep occupants inside the car; to protect them from injuries due to contact with hard objects; and to spread the force of a crash over parts of the body that can cope with such forces more easily.

The crash-test dummies were coated with paint that rubs off easily, so that places where they had made contact within the car could be noted.

4 Headrest/head restraint design

Experts assessed how well the headrest will reduce the effects of whiplash, which can occur when the occupant's head is thrown back (either as a result of a rear impact or as a rebound from a frontal crash). The headrest can also help to prevent neck injury, but only if it's not too far behind the back of the head or too far below the top of the head.

A 'poor' rating (✗), for example, means the top of the headrest (in the lowest possible position) is more than 12 cm lower than the top of the head or more than about 10 cm away from back of the head of an average-size male.

As a guide, the top of the headrest shouldn't be lower than the eye level of the person in the seat.

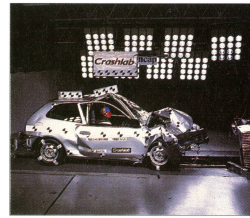
5 Protection from serious injury to various parts of the body

Crash-test dummies that represent an average-sized adult male were seated in the driver and passenger seats. Their heads, chests and legs were fitted with sensors that measured the forces and movements these body parts experienced during the crash tests. The measurements were used to calculate the risk of injury.

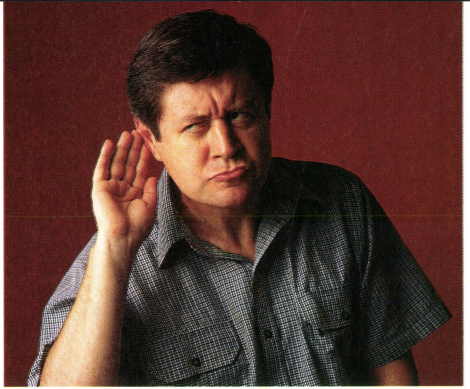
6 Overall performance

The overall performance incorporates the results for structure, restraint systems and protection from injury in both types of crash, for both driver and passenger. Leg injuries are not usually life-threatening, and are given less weight in the overall rating, as is headrest design.

Structure (the integrity of the passenger compartment) and protection from injuries to the head and chest are given the highest weighting. The cars are ranked, even within the same overall performance rating, according to their crashworthiness in higher vs lower-weighted areas.



The Mitsubishi Mirage (with airbags) was the best of the small cars tested for crashworthiness, though still only classed as 'acceptable' overall.



With more people suffering some sort of hearing impairment nowadays, how do you identify the signs, where do you go for help, and how do you get the best service?

Can everybody hear me?

IN BRIEF

- The number of hearing-impaired people is growing rapidly — it's now about 20% of the population.
- Getting the best out of a hearing aid depends on having realistic expectations, choosing a good provider, getting a good fitting and good follow-up, and your persistence and assertiveness as a consumer.
- Trialling a hearing aid is the best way of being sure you'll use it in the long term.
- Changes to the Federal Government's hearing services program mean consumers now need to be much better informed to get the best out of it. Support groups are invaluable for this.

THE ONSET OF HEARING DIFFICULTIES is often very subtle, and many people subconsciously compensate for it by gradually changing their lifestyle. You may not notice till the arguments start over how loud the TV is.

There are a number of indicators for hearing loss, including:

- A conversation is hard to follow, especially in a noisy environment.
- The television and radio sound muffled, and music doesn't sound as 'full' as it used to.
- You have difficulty hearing the phone ring or understanding children's voices.
- You have ringing or noises in the ear (tinnitus — see *Types of hearing problems*, right).

Hearing is crucial for language development, but you may not realise if a child's hearing is impaired. It's a good idea for parents of young children to find out what the signs are. The Australian Hearing Services provides information and free specialised services for children and young adults up to the age of 21 and their families (see *Contacts*, page 29).

If you suspect hearing loss, first visit your GP, who can refer you to an ear, nose and throat (ENT) specialist (Medicare won't necessarily cover the full cost, so check how much you'll have to pay). If you then go to a separate audiologist or audiometrist, try to ensure they're well qualified (see *Who provides the hearing services*, above right) and co-ordinate treatment with your GP or specialist.

THANK YOU to all readers who wrote in with their experiences with hearing aids. Your letters were invaluable to us in the preparation of this article.

The Commonwealth hearing program

Many people who need a hearing aid are eligible for a free one from the Commonwealth Government, including most pensioners, part-pensioners and veterans. However, its hearing services program has undergone recent changes intended to make it more competitive and give greater consumer choice. As a result your choices are more complicated, and the only way you can ensure you get the best possible treatment is to make the effort to find out how the process works (see page 25) and what all your options are. We take you through the main points in this article, but there are lots of variations depending on your circumstances.

The Office of Hearing Services (OHS), within the Department of Health and Aged Care, now administers the Commonwealth program. Both the government-owned Australian Hearing Services and private providers contract with the OHS to provide services to eligible people. Under the new system, the OHS has put restrictions on what types of hearing aids can be provided free, and they and other devices are available in various 'tiers', depending on the degree and type of your hearing loss.

Government funding to providers has also decreased and, as a result, a number of them — including the

Who provides the hearing services?

There are two kinds of non-medical hearing service providers: audiologists and audiometrists, and there's no legal requirement to be qualified before you call yourself either. To be a member of a professional body, such as the Audiological Society of Australia or the Australian College of Audiology, however, a person must meet certain requirements, though there's some disagreement on requirements and qualifications.

Providers accredited by the Office of Hearing Services (see below left) must have: postgraduate qualifications in audiology or equivalent training, including complex hearing assessment, and a minimum of two years of clinical practice in audiology (audiologist); or a certificate course in hearing aid audiometry and/or in-house training in the hearing aid industry, with a minimum of two years' experience in hearing aid fitting and management (audiometrist).

non-profit Victorian HEAR Service — are leaving the government system because they can't afford to stay in it. According to HEAR, the system effectively rewards practitioners for spending less time with clients, affecting the quality of follow-up. Both the Audiological Society of Australia (ASA) and HEAR are concerned that the OHS funding arrangements focus on the hearing aid fitting rather than assessment and rehabilitation as a whole.

■ To check your eligibility for the OHS program, ring the Health Information Line (see *Contacts* for details).

'Top-up'

Under the OHS scheme, you can choose to pay extra for a hearing aid with features that aren't available on free devices; this is called a 'top-up'. You're paying the difference between the selling price of the fitted aid package and what the government will pay for a person with your hearing difficulties.

The crucial question is whether you really need the more expensive aid. Consumer groups are concerned that with the current financial pressures on providers, they may be more likely to talk someone into a top-up. So far, 14% of complaints received by OHS have been about top-up matters, with the main complaint being that people felt they hadn't been fully informed about free devices. The only way you're likely to know if a top-up is worth paying for is by trialling a free aid first, though you're unlikely to be given this opportunity. The ASA estimates that about 10% of OHS clients may benefit from a top-up aid.

If you go for a top-up aid, you negotiate its total cost and the additional maintenance charge with your service provider. The OHS advises getting a written quote for a top-up and shopping around.

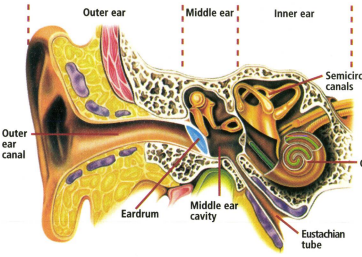


Illustration courtesy of Bernafon

Types of hearing problems

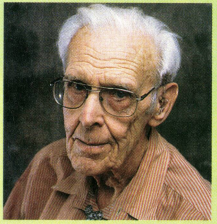
Some loss of hearing is congenital, but most people develop it later in life from other causes. Two main locations in the ear are affected:

■ Outer or middle ear (conductive). Hearing loss here prevents sounds from being conducted to the inner ear and can be caused by wax build-up, infection, a bony growth (in the middle ear) or damage to the ear drum.

■ Inner ear (sensorineural). Hearing loss affects either the cochlea or the auditory nerve that carries messages to the brain, and can be caused by diseases like meningitis, mumps and measles, some drugs, head injuries and, most commonly, aging. The most common preventable cause is exposure to excessive noise for long periods.

Tinnitus is a ringing in the ears that can be especially distressing when you're trying to sleep. Around 10% of people have significant tinnitus and it's not always associated with hearing loss. Certain kinds of devices, together with sleep and stress management and relaxation and distraction techniques, may help with tinnitus.

Not in control



"Attending a reunion ... I enjoyed the first half-hour when only three of us had turned up. Once everybody had arrived I found the hearing aid totally useless.

"My biggest complaint is that I'm not in control [of the computerised model] any more, as the thing has no controls that I can operate whatsoever. There is no T-switch, which you need for telephone conversations or in conference rooms that are wired for electronic hearing, not even an on/off switch. If you want peace and quiet or don't need the aid you have to take it out and fold the battery out to save its charge."

[Dr Steller was due to visit an audiologist last December, who would use tapes with different background noises to help him test his hearing aid.]

Dr ET Steller, Durack, Qld.

Going private

If you don't qualify for the OHS scheme, you're looking at between $1500 and over $6000 to cover the device and service cost of fitting a pair of hearing aids.

Private health funds may rebate some of the cost of hearing aids, though they're unlikely to completely pay for even the cheapest model. This was a considerable source of discontent for the CHOICE readers who wrote in on this issue. The waiting period for belonging to the fund before you're able to claim can be up to three years. There'll also be an annual limit and a limit on the number of appliances claimed for in a defined period of time.

Medicare doesn't cover hearing aids, and will only provide funding for hearing tests by an audiologist employed by your ENT specialist and under their supervision. Some state government-funded hospitals also conduct free hearing tests.

Hearing aids: what to look (out) for

There are hundreds of hearing aids available, with a bewildering array of features and combinations of features. You need to ask your provider for detailed information about what's available and what's appropriate for you. It's worth getting additional advice too — see *Contacts*, page 29.

We've listed some features to ask about below, but in the end, how well a hearing aid works for you will depend not just on the aid itself, but on how well it's tailored to your hearing loss and lifestyle needs, your expectations, how well it's fitted, the follow-up you get, and your persistence and assertiveness as a consumer.

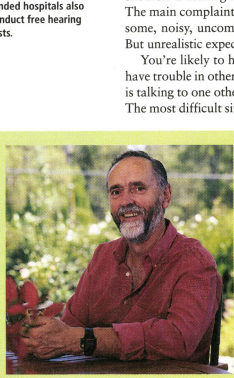
Hearing aids come in various styles:

- Behind the ear (BTE).
- In the ear (ITE).
- In the canal (ITC).
- Completely in the canal (CIC), which are the smallest type.

ITE and ITC aids make up 80% of aids used, but each type has its pros and cons, as well as being more suitable for certain people or certain types of deafness over another. While you may have a preference, you'll need to be guided by your service provider as to what will work best for you.

A hearing aid that is both properly fitted and used can greatly improve your ability to hear. However, only around 30% of people who would benefit from a hearing aid wear one on a regular basis. The main complaints are that it's conspicuous, tiresome, noisy, uncomfortable or difficult to handle. But unrealistic expectations don't help here.

You're likely to hear well in some situations but have trouble in others. The easiest listening situation is talking to one other person in quiet surroundings. The most difficult situation is where there is a lot of background noise, for example conversations in a club or restaurant, in a shopping centre or in busy street traffic.

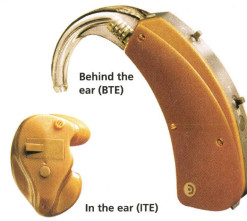


Lack of clarity

"I mainly use my aids for the benefit of my family when watching television ... and frequently need to remove them in shopping centres."

Warwick Plumridge, Kellyville, NSW

Types of hearing aid



Features

All features have their pros and cons, and suitability for different people. Ask your provider to explain them to you.

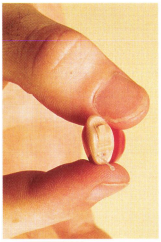
These features are likely to be available on free hearing aids:

- **Output limiting compression** (or **'peak clipping'** on more powerful devices): used to limit the maximum sound the aid can produce.
- **Gain control:** volume adjustment.
- **Frequency response control:** used by the provider to adjust which frequencies are boosted by how much.
- **T-switch:** used to select the T-coil that enables the hearing aid to pick up magnetic fields instead of sound waves, letting you listen to some sound sources (such as a telephone) more directly — see *Assistive listening devices*, page 28, for more on this.

These features are sometimes available on free aids:

- **Electrical audio input**: enables you to plug in a handheld microphone, radio, television or cordless device such as an FM system. Generally available in BTE hearing aids only.
- **Remote control:** enables you to vary controls (like the volume control, the T-switch or the program switch) more easily than by manipulating tiny controls directly on the hearing aid itself.
- **Directional microphone:** designed to give extra amplification from the front and less to sounds coming from other directions.
- **Wide dynamic range compression** or **gradual compression:** automatically controls volume.
- **Computerised** or **digitally programmable:** this means instead of the provider using small screwdrivers to adjust the hearing aid controls, it can be programmed by being connected to a computer. This allows the aid to be more precisely adjusted to suit your particular hearing loss.

Completely in the canal (CTC)



In the canal (ITC)

These features are less likely to be available on free aids:

- **Multimemory** or **multiprogram:** two or more programs on the aid that treat the sound differently for different environments.
- **Multiband** or **multichannel compression:** automatically changes the way different frequencies are processed according to the environment you're in.
- **Multimicrophone:** allows you to choose between a directional microphone or a conventional microphone that picks up sound more evenly from all directions.
- **Fully digital:** this gives the provider more flexibility when adjusting the aid, and also gives the aid more control over the way it automatically amplifies sound in different listening environments.

Because of the links between various service providers and manufacturers of hearing aids, certain combinations of features may only be available free from certain providers and not available, or only available as a top-up, from others. If you find the combination you want is not available free, it's worth checking to see if you can get it free from another provider.

Rehabilitation

If you're eligible for the Commonwealth OHS program, you're entitled to rehabilitation services to improve your communication abilities, including:

- Understanding hearing and hearing loss.
- Communication tactics and strategies to maximise hearing ability.
- Listening devices (see *Assistive listening devices*, page 28).
- Maximising the benefits of hearing aids.
- Support groups and other services.
- Helping family and friends to communicate with you.
- Developing speech or lip-reading — covered by OHS only if obtained from Australian Hearing Services (see page 29) and limited to those with more complex hearing needs.

Scams

Misleading advertising has always been a problem when buying a hearing aid, but with the introduction of the OHS system, it's now also liable to be directed at people on low incomes to push them towards a 'top-up'. The OHS says it's monitoring for misleading advertising.

Beware of extravagant claims, such as for an aid that will 'eliminate' background noise, and don't buy aids by mail (including over the Internet).

Checklist

☐ See your GP first — whether it's your first time or you're a return client — to make sure there's no medical problem.

☐ Find out if you're eligible for free hearing services (see *The Commonwealth hearing program*, page 24).

☐ Go to a qualified hearing provider.

☐ Check out support groups and resource providers (see *Contacts*, page 29).

☐ Consider taking someone with you — particularly if you're not confident about making yourself understood or being able to follow what the provider says and take notes at the same time. If you live in Victoria, contact the HEAR Service (see *Contacts*).

☐ Discuss your needs and expectations with your provider. Record the outcomes of this discussion. Try to get a clear and honest explanation from them of the outcomes you can expect, and any limitations.

☐ Be patient. When you get a hearing aid, try it out in a familiar environment first and take the time to adjust to new sounds you may not be used to hearing. It's like wearing in a new pair of shoes — don't overdo it on the first day.

☐ Go back to your provider for follow-up. The first return visit should be around two to four weeks after the initial fitting.

☐ Make notes during your trial period to help the provider make the right adjustments at the follow-up to ensure that you get the best comfort and sound quality.

☐ Ask your provider about other aspects of rehabilitation, including assistive listening devices (see page 28).

☐ Discuss an ongoing maintenance agreement.

☐ If you're an OHS client, you'll be given a 'claim for payment' form to sign. Read it carefully first to make sure that you've received the services described. Don't sign a form that's blank or incomplete.

☐ Be realistic. Don't be misled by advertising hype or expect miracles. No hearing aid will give you back normal hearing, or eliminate background noise.

Before paying for a top-up aid or buying your own, remember:

☐ A free hearing aid is supposed to have a T-switch if you need one (see *Assistive listening devices*). So if your chosen aid doesn't come with one, you should be able to get one at no extra cost.

☐ If you're eligible for a free aid, ask to trial one first — but don't be surprised if you're told it's not possible (see *CHOICE thinks*, page 29).

☐ Always trial a top-up aid or one you're considering buying yourself. Ask for a money-back guarantee.

☐ Ask the provider what specific benefits you can expect from the hearing aid they're recommending.

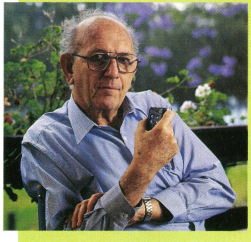
☐ The OHS says you're entitled to shop around to compare prices for a top-up device once you've decided on a model. But make sure you know exactly what's covered in the prices you're comparing: for example, check if assessment, fitting, follow-up, repairs, maintenance and batteries are all included.

☐ Assess the cost and make sure you've considered cheaper options such as assistive listening devices and communication training first.

Service: what to expect

If you're eligible for the OHS program, you apply for a voucher and are sent a list of OHS-accredited service providers to choose from. Whether you're an OHS or private patient, you should expect the following level of hearing services from a provider.

1. Assessment: The provider tests your hearing and gets your case history. You should be asked to explain the problems you're having and what you would like help with.



Expectations too high

"It cost $5200. I rarely used it. I lost it last month and without good reason will not replace it ... The hearing aid is not worth the trouble, let alone the money! ... I blame false PR, untrue advertising and wishful hopes. The device did not live up to my expectations."

Ron Freer, Picnic Point, NSW

2. Hearing aid fitting: If you need a hearing aid, a wax impression is taken. As an OHS client you can choose a free aid or pay extra (see *'Top-up'*, page 25) for an aid with extra features. Once the hearing aid has been fitted, the provider tests how well it's working — with a machine, by examining your ability to understand speech and by asking you directly. They should also show you how to use the controls and change the batteries. If you don't need a hearing aid, you should be given help to communicate better.

3. Follow-up: A well-fitted and properly used aid should feel comfortable. Try getting used to it in familiar environments. On the first follow-up visit, tell the provider if anything about the aid disturbs you, including the comfort of the mould and the sounds you hear. Keep a record of your reactions in different situations: the more input from you the better the adjustment to the aid the provider can make. Modifications to the mould, for example, may be necessary, and the provider might need to adjust the settings on the aid.

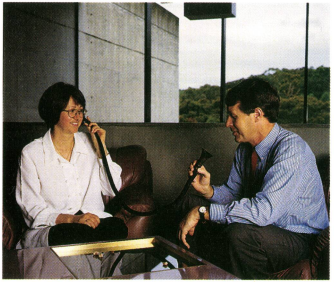
During the follow-up the provider should also give you other assistance to communicate better (see *Rehabilitation*, page 27). Before you sign the claim for payment, make sure all your agreed expectations have been met.

4. Repairs and maintenance: You can choose to pay

Assistive listening devices

Assistive listening devices (ALDs) can be used instead of or with a hearing aid (often with a T-switch — see below). Under the OHS program, they're generally only available free for people with complex hearing needs. ALDs include:

- Volume-enhanced telephones (from your phone company).
- Telephone typewriters (TTYs).
- National relay service between voice and TTY phone lines.
- Flashing doorbells and baby alarms.
- Vibrating alarm clocks.
- Captions, decoders, amplifiers and headphones for TV.
- Ultra-loud smoke alarms.
- Hearing dogs.
- A hearing aid with a T-switch, which can be used with: a telephone fitted with a T-coil; an audio loop system fitted in a room, which enables you to hear a person speaking into a microphone; or a neck loop plugged into an FM or infrared receiver (see below).
- An FM communication system, which provides a cordless connection between a transmitter and a receiver. The transmitter would be on a person or a device such as a TV. The receiver would be on a person wearing a set of headphones or a neck loop (and a hearing aid with a T-switch). The FM system filters out background noise, for example in a conference setting.
- An infrared communication system, which provides a cordless connection for a hearing-impaired person wearing a 'stethoscope' receiver or a neck loop plugged into the receiver.



This old-fashioned hearing aid was found to improve hearing as well as some of the latest gadgets — but of course its size might be an issue for some people.

- A personal amplifier, which is a handheld microphone attached to a set of hearing aids or headphones for hearing one other person in a noisy crowd.

Deafness Resources Australia (see *Contacts*, right) has a very broad range of ALDs.

$2.5 a year for ongoing maintenance (the Department of Veterans Affairs will pay this for some people). The OHS warns that the cost of batteries and maintenance if you were paying for them yourself would be a lot more than this, so it's advisable to pay this fee upfront. If you decide to go for a more costly top-up aid, make sure you discuss the annual maintenance fee — it's likely to be more.

Under the OHS maintenance agreement, you can:

- Have repairs done within seven working days (10 if you mail the aid).
- Get another device on loan while waiting for repairs.
- Contact the provider for advice without an appointment.
- Get batteries for your aid as required. Hearing aid batteries can last from three days to three weeks, depending on the make and model (the more powerful aids use up more batteries), the length of time it's worn and the volume settings used.

Under the OHS program there's a minimum 12-month warranty for all new devices to cover repair, remake and modification in case of defects. However, this doesn't cover the possibility that the aid you've been fitted with turns out to be the wrong one for you. If this happens, it depends on your provider and the nature of the aid whether you'll be able to exchange it (BTEs are more likely to be exchanged than CICs, for example).

Under the OHS program, you can also get a replacement device fitted at no extra cost if yours is lost or damaged. ❑

CHOICE THINKS

- A trial is the only way you can tell for sure if you can live happily with a hearing aid, and not simply end up leaving it on your bedside table. OHS providers aren't required to provide a trial of a free device before they recommend a 'top-up' (a more expensive aid, part of whose cost you'll have to pay), and there is some doubt they would be willing to, given the amount of money currently given to providers by the government. Consumers should be entitled to trial a free device before paying out for a top-up device, so they can make an informed choice.
- The OHS should make available more information on how many top-ups different providers are recommending and investigate any providers who have an above-average rate.

Patience and persistence pay off

"About four years ago I joined an aural rehabilitation class [where] I learned lip-reading, listening tactics, memory training (you need a good memory to be a good lip-reader) ... When I said my hearing aid sounded a bit tinny, it was reassuring to know that that was normal and that I would get used to it ... To be told by one class member that it took him six months to get used to his hearing aid and by another that it took her 12 months, and to hang in there because it was worth it in the long run, was a great help."

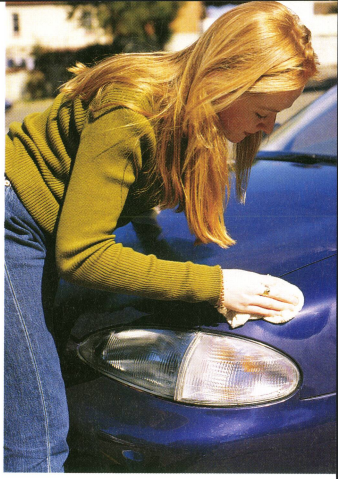
Susan Daw, Bruce, ACT

Contacts

- **Health Information Line:** General information on the Office of Hearing Services (OHS) progam: voice 1800 686 126; TTY 1800 500 496; OHS web page: www.health.gov.au/hear.
- **Australian Hearing Services**: voice 13 17 97; check the phone book for TTY in your area. Web page: www.hearing.com.au.
- **Deafness Forum Australia:** Information on consumer support groups throughout Australia: voice (02) 6281 3934 ; fax (02) 6281 4309; TTY (02) 6281 3156; email: deaforum@ozemail.com.au; web page: www.ozemail.com.au/~deaforum.
- **Better Hearing Australia:** Check your White Pages or contact the national office: voice/fax (08) 8342 0488.
- **Self Help for Hard of Hearing (SHHH):** Sydney-based but may be able to provide details of local support groups: voice (02) 9449 9144; fax (02) 9449 2381.
- **HEAR Service (Victorian Deaf Society):** Melbourne-based hearing rehabilitation service. Also offers advocacy for all Victorians who are deaf or have hearing loss: voice (03) 9657 8199; TTY (03) 9657 8152; fax (03) 9657 8151; email: info@vicdeaf.com.au; web page: www.vicdeaf.com.au.
- **Deafness Resources Australia:** Non-profit supplier of low-cost ALDs and literature. Ask for its free catalogue: voice (02) 9204 2970; TTY (02) 9204 2993; fax (02) 9204 2972; outside Sydney: voice 1800 656 428; TTY 1800 642 664; email: dra@aceinfo.net.au.
- **Australian Communication Exchange (ACE):** A recently formed amalgamation of Deaflink and Deafness Resources Australia. Provides information on resources and support groups throughout Australia: voice (07) 3000 7600; TTY (07) 3000 7700; fax 1800 066 566; email: ace.brisbane@aceinfo.net.au; web page: www.aceinfo.net.au.
- **Internet**: As well as many of the above groups having their own web page, a number of readers said Internet newsgroups provide a great opportunity for hearing-impaired people to share experiences. You may want to use the search engine DejaNews.

We tested a wide range of car waxes and polishes to find out which ones shine.

Wax *on*, wax *off*



IN BRIEF

- Most polishes and waxes tested did well at restoring the shine to a slightly weathered surface, but a few left noticeable scratches and some could only deliver a hazy finish.
- Not all the products tested are suitable for more weathered surfaces, and the instructions don't always specify if they aren't — but our table on pages 32 and 33 does.

WHETHER IT'S FOR PROtecting your car's surface or simply having the satisfaction of making a faded gloss shine, you have a big selection of waxes and polishes to choose from. But it's buyer beware — some can leave your car with a noticeably scratched surface and a dull finish.

We tested 27 waxes and polishes to see how well they make a car shine (for information on the types we tested, see *What's what* on page 32). We also looked at whether they scratch the surface, how long the shine lasts, and how easy they are to apply and remove.

Shine ... and scratch?

Almost all the polishes and waxes performed similarly when it came to restoring gloss to a slightly weathered panel of car paint. Most were able to make the panel shine like new.

However, some — **POLYGLAZE Glide on glaze, RE-PO Auto polish & cleaner,** and **TURTLE WAX Finish 2001 car polish** — left a white haze on the panels. The worst at restoring shine, the **EAGLE ONE Carnauba pure paste wax,** left a white haze as well as a blotchy, streaky appearance and loss of colour.

It seems scratching is an inevitable by-product of polishing or waxing your car — all the products we tested left some marks on the panels. The better ones left only faint marks, but others left the surface noticeably scratched.

We also tested whether the products could restore the shine to a more heavily (rather than just slightly) weathered surface. We didn't score this aspect because some products are only recommended for new-car surfaces. Unfortunately, the instructions on the bottle, tube or container won't always tell you this.

For example, the manufacturer of the **EAGLE ONE Carnauba pure paste wax** and the **POLYGLAZE Glide on glaze** told us that these particular products are only recommended for new-car surfaces. You'd figure an important point like this would be printed on the containers, but it's not.

To find out which waxes and polishes our test found to be suitable for restoring a moderately weathered surface, see the table on pages 32 and 33. The ones with a tick were able to restore faded paintwork to its near-original condition with only a slight hint of fading.

How long do they last?

How long will the shine last? We put the waxes and polishes through an endurance test, bombarding the panels with UV light and water spray. The hard wax version of **MOTHERS CALIFORNIA GOLD Carnauba cleaner** came out the clear winner in the durability test — its shine took the longest to degrade.

But how long a polish or wax will last on a car depends on more than just the durability of the product — it also depends on where you keep the car and the kind of elements it's exposed to (salty sea air or pollution, in particular).

How easy are they to use?

Some dedicated owners describe waxing their car as a labour of love, but it's more likely to be plain hard work for most. The instructions on the products

usually follow the same course. First, wash the car, then apply the polish or wax — the advice of Australia's only car paint manufacturer is that both chores should be done in the shade. After applying the wax or polish, let it dry, and then buff.

In our test, the easiest products to apply and remove were the **KITTEN Speedshine** and the **POLYGLAZE Glide on glaze**. The former comes in a spray bottle, while the latter has an applicator (other products we tested also have applicators, but this one worked best).

The most labour-intensive wax we tested is the hard wax version of **MOTHERS CALIFORNIA GOLD Carnauba cleaner**. It was the hardest wax in the test — which is probably why it scored lowest for ease of use. But it's worth noting that it was also the most durable product we tested, which means you'd probably have to use it less often than the others.

WHAT TO BUY

equal	**KITTEN Speedshine***	$8
equal	**EAGLE ONE WET Wet-look car polish**	$20
equal	**EAGLE ONE WET Wet-look paste wax**	$30
equal	**AUTOSOL 2 in 1 Polish & wax**	$7
equal	**MOTHERS CALIFORNIA GOLD Carnauba cleaner (hard wax)**	$27

* Recommended by the manufacturer for new-car surfaces only.

Price per polish

For the products in the *What to buy* list, we calculated a price per polish to indicate what you get for your money.

Bear in mind that these are only estimates, based on how much we used to polish a small car — you might use a different amount of polish, depending on the size of your car, the condition of its paint and how you apply the polish. But the figures below still give a good idea of comparative costs.

This cost per polish doesn't take the durability of the shine into account. You might find you need to polish your car less often with a more durable polish — which would partly offset a higher price per polish.

KITTEN Speedshine	$0.80
EAGLE ONE WET Wet-look car polish	$0.60
EAGLE ONE WET Wet-look paste wax	$4.30
AUTOSOL 2 in 1 Polish & wax	$3.50
MOTHERS CALIFORNIA GOLD Carnauba cleaner (hard wax)	$2.10

The products from the *What to buy* list are profiled in rank order. Prices shown are a good target to aim for when shopping around, based on nationwide checks in late 1998. Anything lower is a bargain.

KITTEN Speedshine

Target price: $8

Good all-rounder and the equal easiest to use, but only suitable for new cars. Costs about 80 cents per polish (see left).

EAGLE ONE WET Wet-look car polish

Target price: $20

EAGLE ONE WET Wet-look paste wax

Target price: $30

Both **EAGLE ONEs** were good in all scoring categories and you can use them on more weathered surfaces. The **Wet-look car polish** costs just 60 cents a polish, while the **Wet-look paste wax** is more expensive at $4.30 per polish.

AUTOSOL 2 in 1 Polish & wax

Target price: $7

Another good all-rounder that's suitable for more weathered surfaces too. But it's comparatively expensive at around $3.50 per polish.

MOTHERS CALIFORNIA GOLD Carnauba cleaner (hard wax)

Target price: $27

Best for durability, but the hardest to use. It can be used on more weathered surfaces. Costs around $2.10 per polish.

Say what?

A few products we tested made claims about how long they'll make your car shine. One claimed six months, another boasted 12. Two said they'd last for 52 automatic car washes.

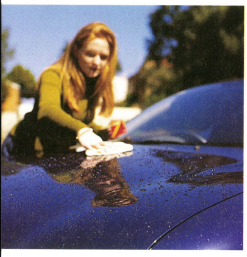
We didn't put these precise claims to the test, but our durability assessment (see the table on pages 32 and 33) lets you compare how long the shine lasts with the products we tested.

CAR WAXES AND POLISHES

1

	Brand / model (in rank order)	Manufacturer/ distributor	Type	Origin	Target price ($) *	Size	Suitable weather surface
	KITTEN Speedshine	Kiwi Brands	Glaze	Australia	8	500 mL	
equal	**EAGLE ONE WET** Wet-look car polish	Eagle One	Cream	US	20	473 mL	✓
	EAGLE ONE WET Wet-look paste wax	Eagle One	Hard wax	US	30	340 g	✓
equal	**AUTOSOL** 2 in 1 polish & wax **(A)**	Dursol-Fabrik	Cream	Germany	7	75 mL	✓
	MOTHERS CALIFORNIA GOLD Carnauba cleaner (hard wax) **(B)**	Mothers	Hard wax	US	27	340 g	✓
	MEGUIAR'S Gold class clear coat liquid car wax	Meguiar's	Cream	US	33	473 mL	✓
equal	**CARLOVERS** Revitalising polish **(C)**	CarLovers	Cream	Australia	9	375 mL	✓
	EXPORT Soft wax	Oweno	Cream	Australia	5	250 g **(D)**	
	KITTEN Liquid polishing wax no.1	Kiwi Brands	Cream	Australia	10	375 mL	✓
equal	**POLYGLAZE** Glide on glaze	Selleys Chemical	Glaze	Australia	9	300 mL	
	RE-PO Cream polish	CRC	Cream	Not stated	9	250 g	✓
	MEGUIAR'S Deep crystal wet-look	Meguiar's	Cream	US	21	473 mL	✓
equal	**MOTHERS CALIFORNIA GOLD** Carnauba cleaner (cream) **(B)**	Mothers	Cream	US	18	473 mL	✓
	POLYGLAZE Diamond finish long life wax	Selleys Chemical	Cream	Australia	10	300 g	✓
	RE-PO Regal cream polish	CRC	Cream	Not stated	11	260 g	✓
equal	**CARLOVERS** Liquid wax protective glaze **(C)**	CarLovers	Glaze	Australia	9	375 mL	✓
	KITTEN Cream polishing wax no.1	Kiwi Brands	Cream	Australia	10	250 g	✓
	NU FINISH The once a year car polish	Advil	Cream	Australia	15	500 mL	✓
equal	**POLYGLAZE** Diamond finish long-life polish	Selleys Chemical	Cream	Not stated	10	375 mL	✓
	TURTLE WAX Finish 2001 car polish	Holt Lloyd	Cream	UK	13	500 mL	✓
	TURTLE WAX Hard shell shine car wax	Holt Lloyd	Cream	Australia	9	375 mL	
	EXPORT Liquid wax	Oweno	Cream	Australia	3	325 mL	
	SERIES 500 Soft wax	Motor Mate	Cream	Australia	5	250 g	
	EAGLE ONE Carnauba pure paste wax	Eagle One	Hard wax	US	21	340 g	
	SERIES 500 Gold automotive polymer wax	Motor Mate	Cream	Australia	6	325 mL	✓
	TURTLE WAX Car polish	Holt Lloyd	Cream	Australia	8	250 g	
	RE-PO Auto polish & cleaner	CRC	Cream	Not stated	8	500 mL	

Do you really need to polish at all?



Car manufacturers say different things about polishing your car. One Toyota owner's manual says it's "recommended to maintain the original beauty of your Toyota's finish". One of Holden's, on the other hand, says, "You may wish to polish your car to provide maximum protection against road dirt and industrial fallout."

While the manufacturers aren't saying it's essential, there are benefits from regularly waxing and polishing your car. Apart from making its finish look better, it gives the surface an extra buffer between it and the elements (air pollution and salty sea air are two harsh agents that could degrade your car's shine).

It also gives you the opportunity — as you apply the polish and then take it off — to carefully examine the surface of your car and note any blemishes. Chips in the paint should be touched up before the metal corrodes, and substances like tree sap and bird droppings should be removed before they damage the paintwork.

What's what

Our test of 27 products included three hard waxes, three glazes and 21 cream or soft wax polishes. We didn't test any cut-and-polish products (see below) or any that require a pre-wax preparation (other than washing the car).

- **Glazes** are usually recommended for new-car surfaces only, but the **CARLOVERS Liquid wax protective glaze** worked well on a moderately weathered surface.
- **Hard waxes** can be used on a variety of different surfaces — check the manufacturer's recommendation. They can potentially be used on new and weathered surfaces, and on clear-coat finishes or conventional paints.
- **Cream polishes/waxes**, like hard waxes, can be suitable for a variety of different surfaces.
- **Cut and polishes** are for badly weathered surfaces only. They're formulated to remove a thicker surface layer of 'dead' paint to expose the good paint underneath.

2 Scratch score (%)	3 Polish score (%)	4 Durability score (%)	5 Ease of use score (%)	6 Overall score (%)	Brand / model (in rank order)	
90	80	85	80	83	**KITTEN** Speedshine	
90	80	83	70	79	**EAGLE ONE WET** Wet-look car polish	equal
90	80	83	70	79	**EAGLE ONE WET** Wet-look paste wax	
90	80	78	70	77	**AUTOSOL** 2 in 1 polish & wax **(A)**	equal
90	80	95	50	77	**MOTHERS CALIFORNIA GOLD** Carnauba cleaner (hard wax) **(B)**	
80	80	73	70	75	**MEGUIAR'S** Gold class clear coat liquid car wax	
60	80	78	70	74	**CARLOVERS** Revitalising polish **(C)**	equal
60	80	78	70	74	**EXPORT** Soft wax	
50	80	78	70	73	**KITTEN** Liquid polishing wax no.1	
80	50	80	80	73	**POLYGLAZE** Glide on glaze	equal
60	80	75	70	73	**RE-PO** Cream polish	
60	80	73	70	72	**MEGUIAR'S** Deep crystal wet-look	
60	80	73	70	72	**MOTHERS CALIFORNIA GOLD** Carnauba cleaner (cream) **(B)**	equal
50	80	75	70	72	**POLYGLAZE** Diamond finish long life wax	
60	80	73	70	72	**RE-PO** Regal cream polish	
60	80	70	70	71	**CARLOVERS** Liquid wax protective glaze **(C)**	equal
50	80	73	70	71	**KITTEN** Cream polishing wax no.1	
50	80	70	70	70	**NU FINISH** The once a year car polish	
50	80	70	70	70	**POLYGLAZE** Diamond finish long-life polish	equal
90	80	58	70	70	**TURTLE WAX** Finish 2001 car polish	
40	80	73	70	70	**TURTLE WAX** Hard shell shine car wax	
40	80	70	70	69	**EXPORT** Liquid wax	
50	80	73	60	68	**SERIES 500** Soft wax	
90	20	85	70	65	**EAGLE ONE** Carnauba pure paste wax	
40	80	63	60	64	**SERIES 500** Gold automotive polymer wax	
40	50	68	70	61	**TURTLE WAX** Car polish	
50	50	55	70	58	**RE-PO** Auto polish & cleaner	

* Prices shown are a good target to aim for when shopping around, based on nationwide checks in late1998.

(A) Can also be found labelled 'polishing wax'.

(B) Both Mothers products have the same name. The hard wax comes in a tin, the cream comes in a bottle.

(C) CarLovers products are most commonly found at CarLovers outlets. The RRP is $9, except in Victoria where it's $8.

(D) New size of 300 g was introduced recently.

1 Suitable for weathered surface

We tested the products on a moderately weathered test panel to see if they were up to the task. We didn't include these results in the overall scores as some products are only recommended for new (or slightly weathered) surfaces.

Products with a tick managed to restore the panel almost to its original condition with only a slight hint of fading.

2 Scratch score

All the products tested scratched the test panels to some extent. Products with a low score left the surface noticeably scratched, while the top scorers left only faint marks.

3 Polish score

We tested each product on a slightly weathered panel of paint used by the Australian new-car industry. This score reflects the overall appearance of the panel after the product was used.

4 Durability score

After applying each product to the test panels, we exposed them to repeated cycles of UV light and water spray and measured how long the shine took to degrade down to the same level. These scores reflect how long each product lasted.

5 Ease of use score

Half of this score was based on the ease of applying the product, the other half on removing it.

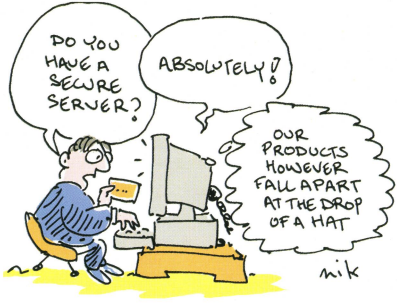
6 Overall score

The following scores were combined to arrive at an overall score:

- Performance (combined scratch (30%) and polish (70%) scores): 35%.
- Durability: 35%.
- Ease of use: 30%.

Security blanket

Is it really safe to shop on the Internet? How do you tell when you're at a 'secure' site?



EVEN THOUGH THE PHRASE 'E-COMMERCE' appears on practically every business marketing brochure you see these days, surprisingly few people are really comfortable with the idea of shopping on the Internet.

Key size counts

Think of a regular lock and key: the fewer tumblers there are in a lock, the easier it is to spring open with a hairpin. The more teeth a key has, the more complex the lock and the harder it is to pick.

An electronic key is made up of two parts: one in your browser and one in the merchant's server software. Its length is described in 'bits', and each bit has an equal chance of being 'on' or 'off'. For every bit added to the key, it's twice as hard to guess the right sequence. In a 40-bit key (the default key in an Australian Web browser) there's a one in 1,099,511,627,776 chance of guessing exactly which bits are on or off in the right order. However, a network of very powerful computers can 'break' a 40-bit key in a few days by simply trying every combination until it finds the right one.

Longer, more secure keys are available, but the US government classifies them as munitions, so they can't be exported as part of the US-made Web browsers we use. However, in Australia and other countries outside the US, companies make products with longer keys that merchants can add to their servers.

Generally, a site will have a link explaining its level of security. You may also be asked to install a small piece of software on your computer to help add stronger security than the one built into your browser. It's fine to download this and install it, but don't forget to run a virus scanner over it first, just in case.

There's no mystery: with so many conflicting stories about whether it's safe to give credit card numbers out on a Web page, you don't know who to believe. When thousands of credit card details were stolen from an Internet service provider a few years ago, it seemed to confirm it: shopping online was dangerous.

The issue *is* a little complex: there are several different levels of security you need to worry about.

- When you enter your credit card number into a form on a Web page and press 'send', it must be secured with electronic 'keys' so that no-one can open and use it even if someone does steal it on its way to the merchant (see *Key size counts*, left).
- The merchant puts your card details into a computer with a lot of other card numbers. What's important at this stage is that the merchant has a 'firewall' on its connection to the Internet so that thieves can't get in.
- At the merchant's offices, standard security concerns arise. Does the building have an alarm? Can anyone get access to the accounts system? Can the staff be trusted?
- Not all banks approve of credit cards being accepted over the Internet — they don't believe it's safe either. So, the merchant's bank may refuse to cover any refunds required due to credit card use in this way. The merchant has to wear the cost if anything goes wrong.

What can I do?

There are several ways to make your Internet shopping experience safer:

- Only shop if you can find the company's real address and phone number. If it's a company you're not familiar with, call first. Keep a record.
- Make sure the site is secure. Look for an unbroken key on a dark blue background (Netscape Navigator) or a closed padlock (Microsoft Internet Explorer) in the bottom corner of your browser. Read any information about the site's security policies.
- Read the site's privacy policies.
- Check you're being charged in Australian dollars. If not, calculate the amount and verify this against your credit card bill.
- Save a copy of all correspondence with the site. If possible, save or print a copy of your order as well.

The bottom line

It's reasonably safe to shop online — at least as safe as any other credit card order without a signature — as long as you take precautions. If you're really worried about card-number theft, you can choose to shop only at sites that have stronger security (see *Key size counts*). ❑

The eight electric multi-function wall (or under-bench) ovens on test all cooked well.

Versatile electric ovens

THE GREAT THING ABOUT HAVING a separate cooktop and oven is that it gives you more flexibility when planning your kitchen.

For example, you can install your oven at waist or chest height, making it easier to keep an eye on the cooking, to remove heavy baking dishes and to clean — and it's out of the reach of young children. Or, if you don't use an oven very often, you may prefer it under a bench and out of the way.

A possible disadvantage of separate components is that the grill is usually inside the oven, so you can't use both at the same time — which could be a major consideration for some people.

You can also mix or match your energy sources — a gas cooktop with an electric oven is an increasingly popular combination. Generally speaking, gas ovens heat faster and are more energy-efficient, and now you can get one with a fan, which makes the heat distribution more even. But electric ovens are still the big seller; they're available with various 'functions' (see page 38), which makes them more versatile, and they're cheaper and easier to install.

If you do a lot of cooking you might go for one of the multi-function ovens in this test — you can use its fan and elements in different combinations for different types of cooking. It's now the most popular choice of oven.

Quantity doesn't always equal quality

The eight electric ovens in this test have a variety of functions. All of them can do conventional baking and grilling, as well as some form of fan-baking (fan-assisted, fan-forced or both — see *Functions*, page 38, for a description), and all allow fan-grilling.

A huge array of functions may look impressive, but how useful they are probably depends on what you cook and how much of a perfectionist you are. The main thing is that your oven performs all its functions well. The BOSCH we tested, for example, has only four functions — conventional baking,

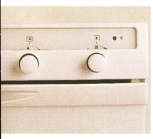
WHAT TO BUY

SIMPSON Evolution 912 63C912W	$1299
WESTINGHOUSE Freestyle POH668W	$1069
BOSCH HBN 222B AU	$1299
CHEF Classic EWOCLMF MW BEST BUY	$829

The **SIMPSON** and **WESTINGHOUSE** were best overall, scoring well for cooking and ease of use. They also rated highly in the assessment for people with a disability. The **BOSCH** also performed well, rating second in the cooking tests, and the **CHEF** was equal best (with the **SIMPSON** and **WESTINGHOUSE**) for ease of use.

IN BRIEF

- **Multi-function ovens give you a choice of conventional or fan-assisted baking and grilling.**
- **Electric wall ovens are cheaper and easier to install than gas ones.**
- **You may need to experiment a little to find the ideal function, temperature and cooking time — the instructions weren't always reliable.**



The main control knob on the CHEF (top) is easy to use and all functions are clearly displayed. The WHIRLPOOL's control (above) isn't as good because all the functions except for the one you're using are hidden from view.

fan-assisted baking, grilling and fan grilling — yet it scored better in our cooking tests than some ovens with twice as many.

As to which function you'd use for a particular dish, you'll have to refer to the instruction manual. But take the instructions with a grain of salt — we found they're not necessarily reliable.

For example, the temperature given in the **BLANCO** instructions for meringues was far too high, resulting in blackened meringues with uncooked centres. When we repeated the test using CHOICE's standard instructions, the meringues scored a perfect 100.

Similarly, the **ANDI** instructions for a sponge cake recommend cooking it for 40–45 minutes. We rescued it well before the time was up, but it had cracked and was over-brown. On the other hand, we followed the **CHEF** instructions for sponge cake to the letter, and cooked it for only 20 minutes — and it scored very highly. It seems some manufacturers might know the characteristics of their oven better than others.

It's inevitable you'll have to do a little experimenting with your new oven, and it could take some practice to find the ideal functions, temperatures and timing for your cooking — preferably before that special dinner party.

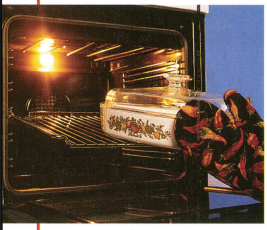
For people with disabilities

An occupational therapist from the Independent Living Centre assessed the ovens for ease of use by people with disabilities.

The best among those we tested is the **SIMPSON Evolution**. The handle is easy to grip with two hands; the labels are easy to read; the shelves allow good access, slide easily and have safety stops to prevent them falling out; the control knob is easy to grip; the window is large and the oven light is bright.

The **WESTINGHOUSE Freestyle** has similar features, although the door handle and control knobs aren't quite as easy to use as the **SIMPSON**'s.

In addition to the general points listed under *What to look for* (right), factors for someone with a disability to consider when buying an oven include:



- Large, clear labelling in a strongly contrasting colour, with text or symbols that are easy to understand.
- A grill that allows easy access — not too high for people in a wheelchair, not too low for people who have trouble stooping. A grill that's separate from the oven is easier to use.

Shelves shouldn't slope down when pulled out, and should have a safety stop mechanism to prevent the shelf sliding straight out of the oven.

Control panel

- Dials that are easy to grip (crossbars help), and knobs, buttons and switches that are easy to operate.
- Labels that are easy to read and understand.
- A light that indicates the oven is in use, and another that indicates it's warming up.

Inside

- A good range of shelf positions. Three or more shelves may be handy, especially if you often cook several items at the same time.
- Shelves shouldn't slope down when pulled out, and should have a safety stop mechanism to prevent the whole shelf being pulled straight out of the oven.
- If shelves do slope, a guard at the front of them will help stop dishes falling off, but may make it harder if you want to slide heavy baking dishes off.

Oven door

- An oven door that's light and easy to open, and stays open in any position (without falling open or slamming closed).
- Enough space between the door handle and door to fit your fingers without burning them.
- A large enough window for a clear view inside — make sure you'll be able to see something cooking on the top shelf.

Grill

- Because the grill is inside multifunction ovens, spattering and smoking fat can make it a bit messy. Look for a grill plate that traps fat and grease below it, rather than a wire rack (see photo).
- A grill tray that's easy to slide in and out and comes out far enough to manipulate all the food on the tray. Look for a safety stop mechanism.
- At least two grill tray heights.

Easy cleaning

- Look for smooth surfaces and good access to all areas of the grill and oven.
- Some ovens have self-cleaning surfaces — a pyrolytic lining — such as the **ANDI** (back wall) and **BOSCH** (top and back wall).
- Other useful features when cleaning include:
  - — Elements that are concealed or, failing that, ones that can be tilted away from the oven walls or removed.
  - — Removable shelf rails or runners.
  - — A removable door.

Ovens are listed in rank order from left to right. Prices shown are a good target to aim for when shopping around, based on nationwide checks in November 1998. Anything lower is a bargain.

SIMPSON Evolution 912 63C912W

Target price: $1299

Good points

- Very good overall cooking score, and best overall for baking.
- Equal best for ease of use.
- Controls are easy to use and read.
- The grill scored particularly well for ease of use: it has a good handle, slides out far enough to reach all the food and has a simple yet practical design.
- Lighting and visibility inside the oven are good.
- Assessed as the best for people with a disability.

Bad points

- The grill has only one temperature setting.

WESTINGHOUSE Freestyle POH668W

Target price: $1069

Good points

- Very good overall cooking score.
- Equal best for ease of use.
- Controls are easy to use and read.
- The grill scored particularly well for ease of use: it has a good handle, slides out far enough to reach food and has a simple yet practical design.
- Lighting and visibility inside the oven are good.
- Assessed as second best for people with a disability.

Bad points

- The grill has only one temperature setting.
- The slowest oven to preheat — it took several minutes longer than most of the others.

What about the rest?

- **The other ovens cooked reasonably well, although they were all let down by their relatively low grilling scores, particularly for evenness — the browning was very uneven.**
- **The BLANCO and WHIRLPOOL rated comparatively low for ease of use: the grill tray on these models is difficult to operate safely and the controls aren't well labelled. The grill tray on the ANDI is also difficult to operate safely.**

BOSCH HBN 222B AU

Target price: $1299

Good points

- Very good overall cooking score, and the best for grilling.
- The top and back of the oven are self-cleaning.
- Lighting inside the oven is good.
- The surface temperature of the door stays relatively cool during cooking.
- It comes with a good recipe book.

Bad points

- The grill doesn't have any form of safety stop.
- The grill tray becomes dangerously hot during cooking, but a detachable handle is provided.

CHEF Classic EWOCLMF MW

Target price: $829 BEST BUY

Good points

- Equal best for ease of use.
- Controls are easy to use and read.
- The grill tray slides out a long way, allowing good access to food, and the handle remains cool enough to be safe.
- Smokeless grill plate (reduces fat splatters, leaving a cleaner oven).
- Recipe book supplied.

Bad points

- Extra grill parts to clean.
- Small window area on oven door reduces visibility.

STAND-ALONE ELECTRIC OVENS

Brand / model (in rank order)	Manufacturer / distributor	Target price ($) *	Origin	Warranty (years)	Dimensions (H x W x D; mm)	Usable volume (L)	1 FUNCTIONS: Conventional bake (top and bottom elements)	FUNCTIONS: Ba (bo ele on
SIMPSON Evolution 912 63C912W	Email	1299	Australia	1	595 x 595 x 580	62	✓	
WESTINGHOUSE Freestyle POH668W	Email	1069	Australia	1	595 x 595 x 580	62	✓	
BOSCH HBN 222B AU	Robert Bosch	1299	Germany	1 **(B)**	595 x 595 x 570	53	✓	
BEST BUY **CHEF** Classic EWOCLMF MW	Southcorp	829	Australia	1	625 x 595 x 575	66	✓	
FISHER & PAYKEL BI600E	Fisher & Paykel	1029	New Zealand	1 **(C)**	595 x 595 x 565	61	✓	✓
BLANCO BMS 604 **(A)**	Major Electrical Appliances	1295	Italy	1	595 x 595 x 515	48	✓	✓
ANDI FI LX315 WT CM-SS-CM/ANDI	Andi	1299	Italy	1 **(C)**	595 x 595 x 565	54	✓	
WHIRLPOOL 6AKP613/WH	Whirlpool	1095	Italy	2	595 x 595 x 575	52	✓	✓

Functions

■ **Conventional bake:** Standard convection baking, where heat comes from elements at the top and bottom of the oven. The temperature tends to be hotter towards the top, which can be useful if you want to cook different foods at the same time. Conventional baking usually uses more energy and the oven takes longer to preheat. It's good for cooking scones, muffins, cakes, fruit cakes (which require slow, gentle cooking), baked custards, pies, pastry, pavlovas, roasts and casseroles.

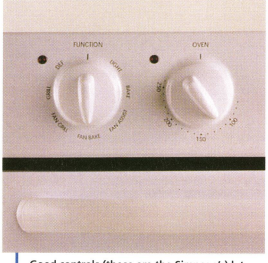
■ **Base (or classic) bake:** Another form of conventional baking where heat comes from the bottom element only. It's particularly recommended for pizzas, quiches and pies, where more heat is needed from the bottom.

■ **Fan-forced bake:** Heat comes from an element at the back of the oven and is circulated by a fan surrounded by the element. The oven heats relatively quickly and efficiently, and heat is distributed evenly throughout. It can be useful for some cakes, pavlovas, roasts, pies, pastry and oven-bake ready-meals.

■ **Fan-assisted bake:** The top and bottom elements of the oven are used, while a fan circulates heat. This can be useful for cooking on more than one level at once.

■ **Grill** (half grill available on some models): Used for browning food surfaces, cooking toast, sausages and other small pieces of meat and fish.

■ **Grill with fan:** Can be used to cook chicken and other roasts.



Good controls (these are the Simpson's) let you easily set which function you want.

Other functions available include:

■ **Defrost:** The fan operates without heat, moving air around to help defrost food. However, for food safety reasons, CHOICE recommends you defrost food in the fridge or the microwave.

■ **Bottom element with fan:** The **BLANCO** has this function; in theory heat is directed from the bottom, as in base or classic baking (see above), while the fan circulates it to the top. It can be useful for pizzas, quiches and pies.

■ **Rear element, bottom element and fan:** The **WHIRLPOOL** has this function, which is also recommended for use when more heat is needed from the bottom.

We didn't test the last three functions, so we can't tell you how useful they are.

How reliable have subscribers found them?

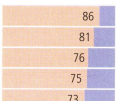
We asked a group of our subscribers if they'd had any problems with their electric wall oven over the previous 12 months and whether they'd buy the same brand again.

About one in seven ovens had needed repair, at an average cost of $112. The most common problems reported were blown oven lights, damaged door seals and broken timers.

The graphs below show the results for those brands for which we received enough answers. The number in brackets tells you how many readers reported on the brand. Note that the results of the survey also include brands not tested, and that we don't have reliability data for all brands on the market.

Percentage not needing repair

Percentage who would buy the same brand again



2	3	4	5

FEATURES

n-forced king	Fan-assisted baking	Defrost	Grill (fan optional)	Clock	Timer	Auto program-ming	Cooking score (%)	Ease of use score (%)	Overall score (%)	Brand / model (in rank order)
	✓	✓	✓	✓	✓	✓	91	78	86	**SIMPSON** Evolution 912 63C912W
	✓	✓	✓	✓	✓	✓	88	78	84	**WESTINGHOUSE** Freestyle POH668W
	✓	✓	✓	✓	✓	✓	89	70	81	**BOSCH** HBN 222B AU
		✓	✓ (F)	✓	✓	✓ (H)	80	78	79	**CHEF** Classic EWOCLMF MW
	✓	✓	✓ (F)	✓	✓	✓	74	73	74	**FISHER & PAYKEL** BI600E
	✓	✓	✓	✓	✓	✓	75	63	70	**BLANCO** BMS 604 (A)
	✓	✓	✓		✓ (G)		70	68	69	**ANDI** FI LX315 WT CM-SS-CM/ANDI
(E)	✓	✓	✓	✓	✓	✓	68	58	64	**WHIRLPOOL** 6AKP613/WH

* Prices shown are a good target to aim for when shopping around, based on nationwide checks in November 1998.
(A) The manufacturer tells us this model will be discontinued in February 1999, but you may still find it in stores.
(B) Manufacturer states two years, warranty card states one.
(C) Additional 12 months if the registration card is returned.
(D) The fan also operates, and you can't turn it off.
(E) You can also use the bottom element in conjunction with fan-forced cooking (for more heat directed from the bottom).
(F) Half grill (no fan) is also available.
(G) Mechanical type, 60 minutes duration. All the others are electronic digital timers with at least four hours.
(H) Semi-automatic only — you can program it to switch off at a predetermined time, but not to switch on.

1 Functions

Cooking programs use the heating elements and fan in different combinations to achieve different cooking effects (see *Functions*, left, for details):

- Conventional baking — top and bottom elements.
- Base (or classic) baking — bottom element only.
- Fan-forced baking — rear element and fan.
- Fan-assisted baking — top and bottom elements, plus a fan.
- Defrost — fan with no heat.
- Grill — grill element (with use of the fan optional).

2 Auto programming

Full automatic programming means you can program the oven to turn on at a specified time, cook on a preselected function and temperature, then turn off.

3 Cooking score

We cooked a variety of foods designed to test the capabilities of the oven and grill:

Oven

- Scones (to test performance at high temperatures).
- Sponge cake (to test performance at moderate temperatures).
- Meringues (to test performance at low temperatures).
- Custard tart (to test temperature variation during cooking).
- Roast chicken (to test oven performance when combined with grilling mode).

All contributed equally to the score for the oven.

Grill

- Toast (to test the evenness of grill heat).
- Sausages (to test how it cooks thicker food with a high fat content).

Both contributed equally to the score for the grill and the oven and grill scores contributed equally to the cooking score.

4 Ease of use score

The ovens were assessed for ease of use based on:

- The controls.
- Using the grill.
- Using the oven.
- Cleaning.

Each contributed equally to the ease of use score.

5 Overall score

The overall score was made up as follows:

- Cooking score: 60%.
- Ease of use score: 40%.

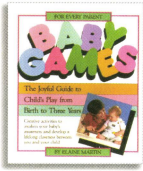
You might be surprised what you'll whip up in one of these ovens — their versatility makes fancy cooking less of a challenge.

CONSUMER BOOKSHELF

Building & Renovating on Time & on Budget

This book helps you build a new home or improve an old one without it being a major nightmare! It covers choosing the right builder, the role of the owner-builder, building terms, insurance, cost control, disputes and complaints. It also looks specifically at kitchens, bathrooms and swimming pools.

$20 Code: BROT



Baby Games

Baby Games is full of games to play with children from birth to three years. It encourages play — one of life's best learning experiences — and singing, and helps you to have a wonderful time while playing with your child.

$20 Code: BG

How to Stay Sane in Your Baby's First Year

Based on the experience of the staff of Tresillian Family Care Centres, this book covers all the major developmental stages and common problems that new parents will need to handle in their baby's first year.

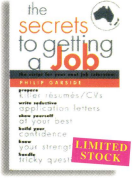
$18 Code: SSBY

The Secrets to Getting a Job

When you apply for a job you not only need qualifications, you need to present them well.

This book provides advice and techniques to help you improve your letters, résumés, interviews, self-confidence and job-hunting skills.

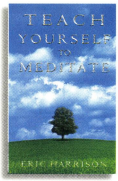
$15 Code: SGAJ



Teach Yourself to Meditate

This revised edition of this popular book contains a series of meditation exercises you can dip into or do in sequence — all of which can help you overcome the stresses of everyday life.

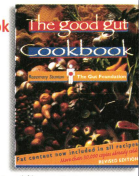
$17 Code: TYTM



The Good Gut Cookbook

Tasty recipes that are actually good for you! This cookbook includes advice about getting your gut healthy as well as a selection of delicious recipes that will help you keep it that way. Each recipe also gives details of fat and fibre content.

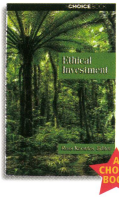
$20 Code: TGGC



TV-free Activities for Kids

With school holidays here this book could help you through those 'I'm bored' days. Each activity lists which age group it suits, whether an adult needs to supervise, if pens, pencils or other tools are needed, and if there is a specific learning outcome. For ages 2–10+.

$15 Code: TVFA



Ethical Investment

If you want to make your money work for you, but want to do it with a clear conscience, this book provides hints and tips on earning interest in ethical ways.

$15 Code: ETHI

Backyard Self-sufficiency

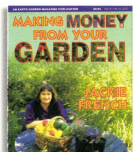
Backyard Self-sufficiency is full of practical advice to help you get the most from your garden. It includes a helpful planting calendar and a suggested list of what to plant to keep you in vegies all year round.

$17 Code BYSS

Making Money From Your Garden

This book explains how you can make and save money by either producing more and varied products from your garden or by doing more with what it already produces. It includes more than a 100 ideas to get you going — ranging from growing and selling potted and cut flowers, to making flavoured oils.

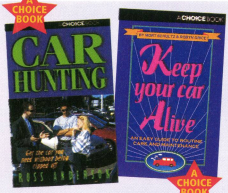
$10 Code: MFYG



Car Hunting

Buying a car is a stressful experience. To make sure you aren't fooled, you need to know all the tricks and traps of the car trade. *Car Hunting* offers the reader surefire tips on getting the best deal available.

$16 Code: CARH



Keep Your Car Alive

Keep Your Car Alive explains in lay terms how a car works and what simple steps you can take to keep yours running more efficiently, for as long as possible.

"I really couldn't find anything they missed." *The Age*

$16 Code: KYCA

BUY BOTH AS A SET: $27 and SAVE $5 Code: AUTO

Free and Low-cost Sydney

Jenny Crocker & Julia Collingwood

See Sydney with a difference. See Sydney low-cost and free! Having a day off? Or is it the weekend — what are you going to do? Find inspiration with the help of *Free and Low-cost Sydney*.

A treasure trove for shameless skinflints, *Free and Low-cost Sydney* is a banquet of free (or almost free) activities to keep the whole family entertained, informed, exercised, intrigued and inspired all year round. Visitors and Sydneysiders alike, singles, couples, young and old, families with kids to occupy and entertain — everyone will find plenty here to attract them.

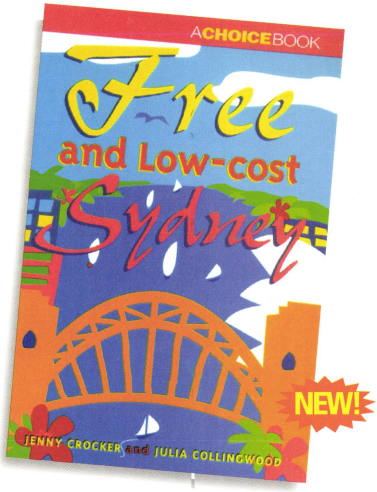
Free and Low-cost Sydney shows you how to find tours of places as diverse as the Olympic site and sewage treatment plants; sculpture walks; organ or chamber music recitals; free jazz at the Rocks or in Manly; museums of Egyptian antiquities, military history or funeral history; and where you can have a cheap facial or haircut, learn Japanese calligraphy or how to develop a share portfolio, be in the audience of a TV show and even tips on how to get your face on TV.

***Free and Low-cost Sydney* is set out in four main parts:**

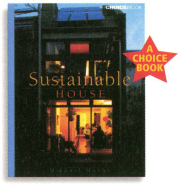
Part 1 **All Year Round** — a variety of activities that can be enjoyed throughout the year.
Part 2 **Calendar of Annual Events** — expos, open days and festivals.
Part 3 **Sport** — how to participate in or watch mainstream or unusual sport.
Part 4 **Days Out** — suggestions for whole-day outings setting out north, south, east and west.

Free and Low-cost Sydney gives contact numbers (and web addresses), opening hours, addresses, charges (if any), maps and tips on transport for activities outside the CBD.

$15 **Code: FLCS**



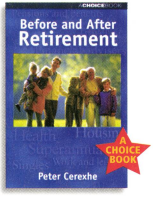
If you want to make changes in the New Year to your home, finances or wellbeing, take a look at ...



Sustainable House

Learn how an inner-city family was able to renovate their terrace house to be a sustainable and environmentally friendly home that also saves water and electricity costs. It includes practical advice and a list of contacts and suppliers.

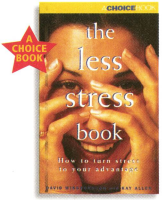
$30 **Code: SUSH**



Before and After Retirement

Whether your retirement is five, 10 or 20 years away it's important to start planning for it *before* it happens. This book explains some of the issues involved in retiring successfully, such as where to live, health, superannuation and tax, and also includes information specifically for the single retiree.

$25 **Code: BAAR**



The Less Stress Book

Aim to make stress your ally this year. Using the exercises and checklists in *The Less Stress Book*, you'll be able to minimise the negative effects of stress on your life.

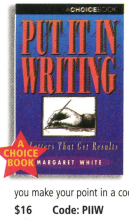
$16 **Code: LSB**

CHOICE BOOKS

Facefacts

Ever wondered what those secret ingredients really do? How does shampoo make your hair more manageable, or toner make your pores smaller? Do they really work? *Facefacts* takes a realistic look at cosmetics, skin and hair care.

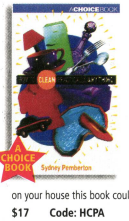
$18 Code: FF



Put It In Writing

Unfortunately, if you have a complaint, talking about it rarely produces a result. You need to get it down in writing it to the appropriate person. *Put It In Writing* makes this easier by providing advice and sample letters that will help you make your point in a cool and effective manner.

$16 Code: PIIW



How to Clean Practically Anything

Practical cleaning advice for every part of your home. This book includes two stain removal guides (one just for carpets), a cleaning calendar, and recipes for homemade cleaning products. If the festive season has taken its toll on your house this book could prove invaluable.

$17 Code: HCPA

The CHOICE Books Australian computer guide series

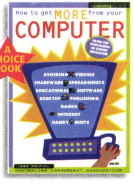
How to Buy A Computer

Third edition

Buying a computer is a large financial investment, and it's important that you get it right — and that means evaluating what *you* need and getting the machine and programs that *can do what you want*. This book is written in a format that's easy to follow and understand and can help you make the best buying decisions for you and your family.

$10 Code: HBC3

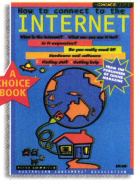
How to Get More From Your Computer



It's amazing how few of us use our computers to their full potential. This follow-up book helps you make better use of the computer you already have. It includes advice about setting up your computer and software, how to keep everything running in order, software and peripherals, and upgrading your computer.

$10 Code: HGMC

How to Connect to the Internet



The Internet is a new and exciting way of sharing information across the planet. This book is an easy-to-understand guide to how to use it, for business or pleasure. "A small price to pay for expert, unbiased, independent Internet advice" *Australian Net Guide*

$10 Code: NET

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CB/9902

Irons

They all get the ironing done, but some are more effective and easier to use than others.

YOU BUY AN IRON TO get your clothes crease-free and presentable, but you don't want to spend too much time on it. Nor do you want to end up with sore hands or wrists.

So, which iron do you choose? Do you need one with all the latest features, or will a basic steam iron do the job just as well? To find out we tested 11 steam irons that sell for under $50 and are widely available in variety and department stores. Some of the brands tested have other technically similar models available for up to $50, but with different features (see *Similar models*, page 47), giving 17 models reported on altogether. The results show you don't need to pay big bucks for a good iron.

As in previous years, we enlisted a group of 13 people who use irons to put them through their paces for us. They assessed the performance and ease of use for each iron on four types of fabric: polyester organza, cotton, denim and linen. These scores were combined to provide an overall score and to rank the irons, reflecting how well they'd work in real-life use (see the table for details, pages 46 to 47).

If you want to buy an iron that we didn't test, *What to look for* (page 44) gives general advice on some of the features of steam irons.

WHAT TO BUY

BLACK & DECKER Quick'n Easy X380	$40
SUNBEAM ProSteam SR1100	$40
PHILIPS HI 220	$40
TIFFANY SI 811 BEST BUY	$20
BREVILLE Super Surge SS-700	$43
MOULINEX Chronomate 35 Vario Plus	$45

IN BRIEF

- **For $40 or less you can get an iron that's easy to use and irons well — see *What to buy*, left.**
- **A shot of steam and water spray can be useful for ironing out wrinkles, but they're not all it takes to make a good steam iron. The only model in the test with neither of these features rated second-best with our trialists.**

Want to spend big bucks?

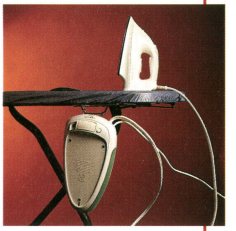
If you're out looking for an iron, you may come across the **PHILIPS Aquazur HI 830 (Excel)**. It's an unusual design and sells for a mere $195. We bought one to find out what you get for the price and how it compares with the standard design.

The **PHILIPS Aquazur** is a three-piece unit consisting of: the iron; a large water reservoir that plugs into a wall socket and has a tube to carry water to the iron; and a detachable rubber mat. During ironing you can hang the water reservoir under the ironing board so it's out of the way, or put it on the board with the rubber mat on top and rest the iron horizontally on it.

Powerful steam

The **PHILIPS Aquazur** performs very well on cotton, denim and linen, where strong steam can make quite a difference. Its powerful steam facility provides a lot of ironing 'muscle', and the shot of steam and water spray work well on particularly stubborn creases. It also has vertical steam, useful for ironing hanging clothes or curtains.

However, you can't just press a button or turn a dial to activate the steam. The trigger is located underneath the handle and you have to keep holding it for as long as you want steam. We found this awkward, as your hand can tense up and become fatigued and cramped.



Our verdict

If you steam iron a lot of heavier fabrics you can probably shorten your ironing time with the **PHILIPS Aquazur**. But before you buy, try it out in the shop to see whether you're comfortable with the steam facility and its heavier weight.

WHAT TO LOOK FOR

If you have a Linda iron with controls like those on the model pictured below, take care when you fill the water tank. Spilt water could get into the iron through the open slots underneath the sliding controls and come into contact with the electrical wiring.

■ Features such as **adjustable steam, shot** (or **surge/burst**) **of steam** and **water spray** can make it easier to iron out stubborn wrinkles. See note 1 on page 47 for more on these features.

■ **Vertical steam** is a relatively new feature; only one iron in this test, the **BREVILLE Super Surge SS-700**, has it. It's an intense burst of steam from the iron in a vertical position, which you can use on, say, curtains or a suit that's hanging up. Irons without this feature can only produce steam in a horizontal position.

■ Which **soleplate** material do you prefer? All but one iron in the *What to buy* list have an aluminium soleplate, which trialists rated highly for gliding easily over fabric. However, the top-rating **BLACK & DECKER Quick'n Easy X380** has a non-stick coating, so it's not a clear-cut choice. An iron with a non-stick coating, such as SilverStone, is generally easier to keep clean, as fabrics and starches are less likely to stick to the soleplate. Just wipe it with a soft cloth after each use. But you have to take care not to scratch the coating when you iron over zips or buttons. Clean an aluminium soleplate regularly with a soft cloth and a non-abrasive household cleaner.

■ Some irons, though none in our test, have an **auto shut-off**: a safety and energy-saving feature that automatically switches the power off if the iron isn't moved or handled within a certain amount of time.

■ Most irons in the test have a **thermostat pilot light**, which comes on when the iron is heating up and switches off when it's reached the set temperature. It shows when the correct operating temperature for a particular fabric has been reached, but it doesn't indicate that the iron's switched on — that's the function of a **power-on** light. Three of the irons tested have a power-on light: the **BREVILLE** (the only one with both types of light), **KAMBROOK Steamaster KI 230** and **SUNBEAM ProSteam SR1100**.

As the thermostat light switches off when the iron has reached the desired temperature, a power-on light lets you know the iron is switched on and hot.

■ It's much easier and cheaper if you can use **tap water**. With most of the irons in our test you can (unless you live in a hard-water area), but some manufacturers recommend distilled water, filtered water or half distilled and half tap water. Some advise against using water from home water softening units.

■ A **plastic beaker** is useful for filling the iron's water tank, especially if it's designed with the opening of the water tank in mind. Only four of the irons in the test are supplied with a beaker: the **BREVILLE**, **KAMBROOK**, **PHILIPS HI 220** and **RONSON Steam & Dry CP 402**.

■ If you have to iron a long way from a wall socket, check the iron's cord length when you buy. In this test they varied from 1.9 m to 3.1 m.

Warm, hot, hotter

An iron takes much more time to cool down than it does to heat up, so when you do your ironing, it's wise to start with synthetics and work up to cottons and linens. However, be careful when first turning on the iron. Regardless of what setting you choose, the initial temperature reached is always higher. After a few minutes it will settle down to around the setting you've chosen.

Seven of the 11 irons tested failed our initial peak temperature test. The worst (the **BLACK & DECKER Quick'n Easy X380**) exceeded the temperature by 58°C when set to 120°C — that's 18°C higher than the standard permits. Nevertheless, when we tested it on sensitive fabric, it didn't damage it.

To avoid ironing at too high a temperature, wait about three minutes after you first switch your iron on or, if it has a thermostat light, until the light goes out and then comes on again. This indicates that the iron has gone through a full thermostat cycle.

One, two and three dots

All but one of the irons in this test have the internationally recognised one, two and three dot markings on their thermostat controls. (The **BLACK & DECKER Quick'n Easy X380** has numbers from 0 to 7). This dot system corresponds with the garment care symbol for ironing (see left). Except for the **MOULINEX** iron tested, all the other models also have fabric names such as synthetics, silk, wool, cotton and linen marked on the casing.

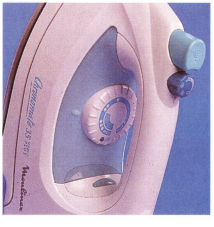
■ One dot stands for synthetics and indicates a temperature of about 110°C.

■ Two dots is for silk and wool (about 150°C).

■ Three dots is for cotton and linen (about 200°C).

In our tests, the **BLACK & DECKER** model slightly exceeded these temperatures (as well as the initial peak temperature), but it didn't damage sensitive fabric. In fact, our trialists thought it performed best, and most thought it ironed synthetics well at the manufacturer's recommended heat setting.

On heavier fabrics such as denim and linen, most irons were effective at getting out wrinkles at the recommended settings. However, with lighter fabrics the trialists generally achieved better results when they turned up the heat.



These symbols are increasingly used on irons' thermostat controls, in line with internationally recognised garment care symbols.

Profiles are of the models in the *What to buy list*, in rank order from left to right. Prices shown are a good target to aim for when shopping around, based on nationwide checks in August 1998. Anything lower is a bargain. Trialists' comments are printed *in italics*.

BLACK & DECKER Quick'n Easy X380

Target price: $40

Good points

- The iron our trialists liked best and said they were most likely to buy.
- Lightweight and comfortable to hold.
- Controls are clear, easy to read and to operate.
- Filling with water is straightforward; it has a wide opening.
- Best overall for people with a disability — visually, and it has a good grip.

"A good, compact product."

Bad points

- Gets very hot when it first heats up — see *Warm, hot, hotter*, left, for details.
- No power-on light.
- No thermostat light.
- Some trialists felt the cord could get in the way of their wrist.

TIFFANY SI 811

BEST BUY

Target price: $20

Good points

- The lightest iron tested.
- Thermostat light.

"A great, light little iron, very smooth."

Bad points

- No shot of steam.
- The spray button is located under the handle, which some trialists found uncomfortable to use.
- No power-on light.

What about the rest?

- The trialists rated the remaining five irons in the test noticeably worse for ironing performance.

SUNBEAM ProSteam SR1100

Target price: $40

Good points

- Best for ironing synthetics.
- Irons well at suggested heat settings.
- Water tank is easy to fill and empty.
- Good for people with weak hands.
- Power-on light.

"For an iron without shot of steam, it's very easy to iron with."

Bad points

- No shot of steam or water spray.
- No thermostat light.

BREVILLE Super Surge SS-700

Target price: $43

Good points

- Controls are easy to read.
- The only iron in the test that can produce steam in a vertical position, which is useful for ironing curtains and suits hanging up.
- The only iron in the test that has both a power-on and a thermostat light.
- Good for people with a vision problem.

"It ironed nicely."

Bad points

- Some trialists found the handle uncomfortable and the iron large and a bit chunky.

PHILIPS HI 220

Target price: $40

Good points

- Best for ironing linen.
- Comfortable to hold.
- Filling with water is reasonably straightforward.
- Thermostat light.

"Very comfortable and accurate temperature."

Bad points

- No shot of steam, though this didn't bother the trialists.
- No power-on light.
- Very small writing on controls.

MOULINEX Chronomate 35 Vario Plus

Target price: $45

Good points

- Rated best by the trialists for gliding easily over fabrics.
- Reasonably comfortable to hold.
- Thermostat light.

"Very smooth."

Bad points

- Shot of steam was considered not strong enough.
- No power-on light.
- Water tank is rather difficult to fill; the instructions aren't clear enough.

"It's difficult to find where to put the water."

Brand / model (in rank order)	Manufacturer / distributor	Target price ($) *	Origin	Warranty (years)	Soleplate type	Weight (kg) **	Cord leng
BLACK & DECKER Quick'n Easy X380	Mistral	40	Malaysia	2	Non-stick	1.1	3.0
SUNBEAM ProSteam SR1100 **(A)**	Sunbeam	40	Australia	1	Aluminium	1.3	2.5
PHILIPS HI 220	Philips	40	Singapore	1	Aluminium	1.3	2.5
TIFFANY SI 811	GAF Control	20	China	1	Aluminium	1.0	1.9
BREVILLE Super Surge SS-700	Breville	43	China	1	Aluminium	1.4	3.1
MOULINEX Chronomate 35 Vario Plus **(B)**	Mobex	45	Mexico	1	Aluminium	1.2	1.9
KAMBROOK Steamaster KI 230 **(C)**	Kambrook	40	China	1	Non-stick	1.2	3.0
RONSON Steam & Dry CP 402 **(D)**	Thebe International	40	China	1	Aluminium	1.1	1.9
LINDA Impress SL59	Linda Electric	35	China	1	Non-stick	1.3	1.9
TEFAL Express 35 **(E)**	Groupe SEB	50	China	1	Non-stick	1.2	2.9
LINDA Impress SL60	Linda Electric	38	China	1	Non-stick	1.3	1.9

equal

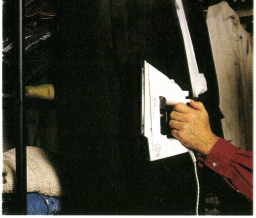
For people with a disability

An occupational therapist from the Independent Living Centre assessed the irons for ease of use by people with various disabilities.

- The iron our trialists liked best, the **BLACK & DECKER Quick'n Easy X380**, was also rated best for people who have problems with their hands or their vision. It's light, comfortable to hold and easy to fill, and has controls that are easy to read and operate.
- The **SUNBEAM ProSteam SR1100** was considered suitable for people with hand problems, as it has a comfortable handle and is easy to balance.
- The **BREVILLE Super Surge SS-700** and **RONSON Steam & Dry CP 402** are good choices for people with vision problems — both have good, contrasting thermostat controls, though the lettering on the **BREVILLE** is rather small.

When shopping, look out for:

- A large handle that's comfortable to hold, and unrestricted finger space between the handle and the body of the iron.
- A cord that swivels and won't get in the way of your wrist.
- A light iron if you have weak hands, wrists or arms.
- Controls that are easy to read, understand and operate.
- A water tank that's easy to fill using one hand.



Vertical steam is a fairly new feature — most irons only produce steam when they're horizontal. It's useful for steaming things like suits while they're hanging up, and curtains.

How reliable have subscribers found them?

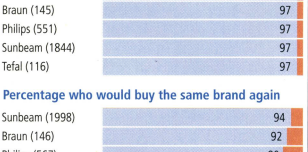
Is reliability an issue with irons? Do some brands need repairs more often than others? To find out, we included irons for the first time in our regular reliability survey.

We asked a group of subscribers if they'd had any problems with their iron in the past year. Only very few (3%) said their iron had needed repair, which could either mean that irons last rather well, or that people tend to replace rather than repair them when problems occur. On average, 88% said they'd buy the same brand again.

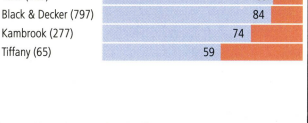
The most common problem reported was with the iron's steam function, and the average cost of the repair was about $30. Considering that for that price or a little more you can buy a brand-new iron, it's not surprising so few people have their irons repaired.

The graphs below show the results of our survey for brands for which we had more than 50 responses; the number in brackets is the number of irons of that brand reported on by subscribers in the survey. We don't have information for all brands on the market.

Percentage not needing repair



Percentage who would buy the same brand again



water	1 Adjustable steam	1 Shot / surge of steam	2 Spray	3 Self-cleaning	4 Fabric ironing score (%)	5 Ease of use score (%)	6 Overall score (%)	Brand / model (in rank order)
G)	✓	✓	✓	✓	85	88	87	**BLACK & DECKER** Quick'n Easy X380
	✓			✓	83	85	84	**SUNBEAM** ProSteam SR1100 **(A)**
	✓		✓	✓	80	82	81	**PHILIPS** HI 220
	✓		✓	✓	76	81	79	**TIFFANY** SI 811
	✓	✓	✓	✓	78	77	78	**BREVILLE** Super Surge SS-700
H)	✓	✓	✓	✓	80	74	77	**MOULINEX** Chronomate 35 Vario Plus **(B)**
	✓	✓			69	73	71	**KAMBROOK** Steamaster KI 230 **(C)**
	✓	✓	✓	✓	65	76	71	**RONSON** Steam & Dry CP 402 **(D)**
or filtered **(F)**		✓	✓		67	70	69	**LINDA** Impress SL59
		✓	✓	✓	68	66	67	**TEFAL** Express 35 **(E)**
or filtered **(F)**	✓	✓	✓	✓	63	62	63	**LINDA** Impress SL60

equal

* Prices shown are a good target to aim for when shopping around, based on nationwide checks in August 1998.
** With water.
(A) Model number A 088.
(B) Type number AX 6.
(C) This model has been discontinued, but you may still find it in shops. According to the manufacturer, it has been replaced with a similar model, the KI 350.
(D) Model number 2HC 7610.
(E) Model number 1397.
(F) But not from a softening system.
(G) Unless it's particularly hard water.
(H) You can also use de-ionised, distilled or half tap/half distilled water, but not rainwater, softened or mineral water.

All the irons have a thermal cut-out fuse, which automatically cuts power to the iron if it's faulty and gets too hot. However, it's a one-time fuse, so although it's a safety feature, if it triggers you'll have to get your iron repaired or buy a new one.

1 Steam

All the irons tested are suitable for both steam and dry ironing. You have to empty the **LINDA Impress SL59**'s water tank for dry ironing, as well as the **BLACK & DECKER Quick'n Easy X380**'s for dry ironing at high temperatures (if there's water in it, it'll automatically produce steam at these temperatures).

If the volume of steam is **adjustable**, you can set it to suit the level of creasing or type of fabric. Heavy fabrics with deep creases need a high temperature and high steam flow, while sensitive or lighter fabrics need low levels of steam, otherwise they may be damaged or temporarily discoloured. On most of the irons tested, the volume could be adjusted continuously or set to various positions.

A **shot** (or **surge/burst**) **of steam** may be useful for ironing out stubborn creases with a little extra moisture.

2 Spray

As with a shot of steam, a water spray is particularly effective when stubborn creases can't be smoothed out with normal steam alone. But it's only useful on some heavy fabrics; the water mist may damage or discolour sensitive fabrics.

3 Self-cleaning

A self-cleaning feature doesn't mean the iron cleans itself, but it makes it easier to maintain it, as you can flush out the layer of scale and other mineral deposits that can block the steam holes if allowed to build up.

4 Fabric ironing score

The trialists evaluated the effectiveness of the iron at removing wrinkles and creases from four different fabrics: polyester organza, cotton, denim and linen. The score is the average for the four fabrics.

5 Ease of use score

To assess ease of use, the trialists rated handle comfort, cord placement and weight of the iron. They also commented on how easily the soleplate glided, how easy the water tank was to fill and empty and how easy controls were to read and change.

6 Overall score

How easy an iron is to use was considered just as important as its ironing performance. So we weighted the ease of use and fabric ironing scores equally at 50%.

Similar models

According to the manufacturers, the models listed below are technically similar to those we tested and are also priced under $50. However, their different features could affect performance or ease of use.

- The **BLACK & DECKER Quick'n Easy X380** tested is technically similar to the **BLACK & DECKER X300**, which has a polished aluminium soleplate, and the **BLACK & DECKER X440**, which has a SilverStone non-stick soleplate and an auto shut-off feature.
- The **BREVILLE Super Surge SS-700** tested is technically similar to the **BREVILLE SS-720**, which has a SilverStone non-stick soleplate.
- We tested the **LINDA Impress SL59** and **Impress SL60**. The **LINDA Impress SL58** is technically similar, except that it has no shot of steam or water spray.
- The **RONSON Steam & Dry CP 402** tested is technically similar to the **RONSON 2TE-7607**, which has no shot of steam.
- The **SUNBEAM ProSteam SR1100** tested is technically similar to the **SUNBEAM ProSteam SR1200**, which has a SilverStone non-stick soleplate.

RECALLS & BANS

If you find a recall or ban not on our list, please let us know. Companies often rent 1800 numbers for a couple of months after the recall is announced. If the number given is no longer operating, phone the manufacturer or retailer direct.

THE PRODUCT: Edge Technology has recalled **KTX Topscan 15" computer monitors, models CAE364G** and **CAE356SG**, sold between July 1995 and December 1996. The monitors are beige and have a KTX Topscan badge on the front. The model number is on the back of the monitor.

The problem: The transformer may fail, posing a fire hazard.

What to do: Unplug the monitor from the mains immediately and return it to any Edge Computer outlet. Affected monitors will be modified at no charge.

THE PRODUCT: Vista Corporation has recalled all bottles of **Vista Preserved Saline Solution**, 500 mL, AUSTL 61427, used for contact lenses and for first aid procedures.

The problem: Some batches of the product have not passed preservative efficacy tests.

What to do: Don't use the product. Return it to the place of purchase for a refund. If you have any queries or any eye discomfort, see your doctor.

THE PRODUCT: Sara Lee Bakery has recalled **Sara Lee Gourmet Beef Lasagne**, 400 g, sold from the Sara Lee Bakery Store at Briens Road, Northmead, NSW, on Thursday, October 22, 1998, with a use-by date of 15 APR 00 printed on the lid of the packaging.

FIELD SERVICE CAMPAIGN

THE PRODUCT: Hyundai is conducting a field service campaign regarding all **Hyundai Excels** made between August 1994 and March 15, 1996. The date of manufacture is found on the compliance plate under the bonnet of the car on the firewall.

The problem: The welding securing the right-hand front suspension and wheel may be faulty and might fail, resulting in a gradual loss of steering control.

What to do: Contact your local Hyundai dealer or phone Hyundai direct on 1800 701 102 to arrange for the front subframe area to be riveted, to supplement existing spot welds.

The problem: Bacterial contamination has been found in a batch of the lasagne.

What to do: Don't eat it. Return it to the store for a full refund. For further information call 1800 222 282.

THE PRODUCT: Mattel has recalled **Fisher-Price Power Wheels** battery-powered ride-on vehicles for children aged between two and seven years, with a speed range of 3–8 km/h, and sold under the following range of model names:

- Kawasaki Ninja
- Kawasaki ZX7
- Xtreme Machine
- Barbie Beach Sun Jammer
- Big Jake Dump Truck
- 3 Wheel Highway Patrol
- Lil Kawasaki
- Barbie Songbird
- Camp Barbie
- Jeep 4X4
- Jeep Wrangler
- Big Foot
- Lil Jake
- Butterfly Princess
- Hot Wheels Lamborghini
- Dune Watch Jeep

The affected vehicles need either 12-volt or Super 6-volt batteries and have two gear boxes near the rear wheels. (Models with only one gear box are not affected.)

The problem: Electrical components in the vehicle can overheat, causing a potential fire risk.

What to do: Stop using the vehicle and remove its battery. Obtain a free safety kit by contacting Mattel's Customer Service on 1800 701 310 between 8 am and 7 pm EDST. Don't return the product to retail stores. All vehicles on sale as of December 1, 1998, should have been checked and modified and display a 'Quality Approved' sticker.

THE PRODUCT: BMW has recalled **BMW Motorcycle Model 1997 K1200 RS** with Vehicle Identification Number (VIN) range ZA20228 to ZA26359, located on the compliance plate fixed to the frame under the seat.

The problem: Riding the motorcycle continuously for several hours in hot weather could lead to deformation of the fuel tank near the pump mounting surface, which could allow fuel to escape from the tank in that area.

What to do: Don't use the vehicle. Contact an authorised BMW motorcycle dealer to arrange for a free check and modification of the model. For further information contact the BMW Access Centre on 1800 813 299.

THE PRODUCT: Mazda has recalled vehicles in the **626(GE)** model range, built between November 1, 1996, and May 31, 1997. Vehicles affected fall within the VIN range JMO GE1052 0011 4030 to 0011 5400 (the VIN is located under the bonnet on the engine compartment rear panel and also in the warranty information booklet on page 5).

The problem: The timing belt tensioner spring may break and the timing belt could become loose and/or the engine stall.

What to do: Contact your Mazda dealer immediately to arrange for an inspection and free repair. For further information contact Mazda Customer Assistance on 1800 034 411 between 8.30 am and 5.00 pm EDST.

THE PRODUCT: Toyota has recalled all **VR series Lexcen** vehicles produced from July 2, 1993, to March 31, 1995, with the following vehicle identification numbers (VIN):

- VDS VRK19H.
  Frame nos. PT646878 to ST807354.
- VDS VRL19H.
  Frame nos. PT646878 to ST807354.
- VDS VRX19H.
  Frame nos. PT646878 to ST807354.
- VDS VRK35H.
  Frame nos. PT646878 to ST807354.
- VDS VRL35H.
  Frame nos. PT646878 to ST807354.

Toyota has also issued a safety recall for the following **T4 series Lexcen** produced from April 1995 up to February 14, 1997, with the following VINs:

- VDS T4K19H.
  Frame nos. ST807355 to VT213674.
- VDS T4L19H.
  Frame nos. ST807355 to VT213674.
- VDS T4X19H.
  Frame nos. ST807355 to VT213674.
- VDS T4K35H.
  Frame nos. ST807355 to VT213674.
- VDS T4L35H.
  Frame nos. ST807355 to VT213674.

The VIN can be seen from the outside of the car on the lower left-hand side of the windscreen.

The problem: Battery vapour and water could enter the wiring harness connector above the battery, causing corrosion and an electrical short circuit and the right-hand headlight to fail. The wiring insulation could melt and ignite.

What to do: Contact a Toyota dealer for free repair. For further information call Toyota's Help Line on 1800 643 242 Monday to Friday between 8.00 am and 4.30 pm EDST.

THE PRODUCT: Dewalt Industrial Powertools has recalled its **Corded Electric Screwdriver** model numbers DW256, DW258, DW266, DW268 and DW269 with date codes 9601 to 9833, sold from February 1, 1998, until October 20, 1998.

The problem: The screwdriver may deliver a mild electric shock to the user when exposed to excessive humidity.

What to do: Don't use the screwdriver. Phone Dewalt on 1800 816 900 Monday to Friday between 9 am and 5 pm EDST to arrange a free modification.

THE PRODUCT: Big W has recalled **Hi Time Safety First Swim Arm Bands**, Batch 98001, sold in two children's sizes: 0–3 years and 3–7 years. The batch number is below the product name Hi Time on the side of each arm band. The arm bands were sold in Big W stores throughout Australia, except Tasmania, from August 10 to October 29, 1998.

The problem: The product fails to meet the Australian Standard AS1900-1991. Stitching at the attachment point of one end of each elastic strap to the float fabric is not the required lockstitch type.

What to do: Don't use the product. Return it to your nearest Big W store for a full cash refund. For further information phone Big W's customer information line on 1800 633 585.

THE PRODUCT: Dimmeys stores has recalled **Star Wheel Super BMX Children's Bicycle**, sold at Forges of Footscray and Dimmeys stores in Victoria and Goulburn, NSW, from about August 3, 1998, to November 9, 1998.

The problem: The bicycle doesn't comply with the mandatory safety standard for pedal bicycles. It's only fitted with one brake; is not equipped with side reflectors on the wheels or with a bell; and it doesn't carry a warning that it isn't designed for off-road use.

What to do: Don't use the bicycle. Return it to Forges or any of Dimmeys stores for a full refund. For further information phone (03) 9427 0442 Monday to Thursday 9 am to 5.30 pm EDST; Friday 9 am to 9 pm EDST; Saturday 9 am to 5 pm EDST and Sunday 10 am to 5 pm EDST.

THE PRODUCT: Nike has recalled **Air Face Up** mid-cut men's basketball shoes, model number 830080-411 in blue, white and silver, with a 5 cm long window in the heel; the words 'Nike Air' are on the outside tongue and 'Team' on the back of the heel.

The problem: A small decorative metal rivet located on the outside of the shoe can bend to form a sharp edge and potentially cause injury.

What to do: Return the shoes to the place of purchase for a credit or exchange. For further information phone the Nike Call Centre on 1300 65 6453 8 am to 6 pm EDST Monday to Friday.

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INS/9902

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Conditions apply to the draw: call (02) 9577 3399 for details.

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Manager: Raja Rajagopal. **Contact:** Jeanette Dwyer on (02) 9577 3333.

Twelve-month INDEX

March 1998 — February 1999

How to use this index
Bold type indicates a test, survey or trial report, normal type indicates other articles.
* indicates an update of a previous report, additions or corrections to reports, small follow-up items or letters.
For space reasons, the index generally doesn't include Choice Cuts, many other small pieces, and Recalls and Bans.

Advertorials and infomercials Jul
Agricultural investments / scams Jul
'Alternative' cleaners Aug
Annual buying guide **Dec**
Answering machines **May**
Anti-aging treatments Jul, Sep*
Antibacterial products Jan/Feb
Antibiotics, resistance to Apr

Baby carriers **Jun**
Backpacks, day **Apr**
Banks
  electronic banking Mar, May*
  free banking Mar, May*
  retirement savings accounts Aug
  satisfaction with **Mar**
Bathroom cleaners **Sep**
Bathroom heat lamps **Apr**
Batteries, AA **Oct**
Blankets, electric **May**
Bread, innovations **Nov**
Building disputes Apr
Buying guide, annual **Dec**

Calling number display Aug, Oct*
Cameras, compact and single-use **Dec**
Camping mattresses **Nov**
Caring in the home Jun, Aug*, Sep*
Carriers, baby **Jun**
Cars
  crash tests, four-wheel drives and small cars Jan/Feb
  crash tests, low-speed May
  jumper leads **Mar**
  lemon laws May
  polish and wax **Jan/Feb**
  safe holiday driving Dec
  servicing under warranty Jul
Cash management trusts May
CD players, multidisc **Mar**
Ceiling fans **Oct**
Champagne and sparkling wine **Dec**
Cheese, reduced-fat cheddar **May**
Chemicals, household, disposing of Sep
CHOICE, saving price of subscription Jul
Cleaners
  'alternative' Aug
  window **Aug**
Clothes dryers **Aug**
Compact cameras **Dec**
Computers
  Internet, 'number unobtainable' charges May
  millennium bug Jun
  modems, V.90 standard Oct
  printers **Jul**, Sep*
  stores going out of business Jul
  upgrading Apr
Concentrated markets Oct
Contact lenses and glasses May
Containers, plastic food storage **Sep**
Cooling your home Oct

Day backpacks **Apr**
Detergents, laundry **Apr**, Jun*
Diet, how's yours? Oct
Digital television May
Dishwasher, two-drawer **Jul**
Disposable cameras **Dec**
Doors, security screen Oct
Dressings, salad, and mayonnaise **Aug**
Driving, safe holiday Dec
Dryers, clothes **Aug**

Electric blankets **May**
Electric ovens, multifunction, wall / under-bench **Jan/Feb**
Electronic banking Mar

Fans, ceiling **Oct**
Financial
  advertisements, misleading Jun
  disasters, learning from Apr
  planners, trial **Oct**
  professionals, choosing Sep, Jan/Feb*
Fish, incl. fish fingers / portions **Mar**
Food
  bread, innovations **Nov**
  cheese, reduced-fat cheddar **May**
  diet, how's yours? Oct
  fish, incl. fish fingers / portions **Mar**
  genetically modified Aug
  glycaemic index Sep
  labelling Apr, Nov*
  mayonnaise and salad dressings **Aug**
  potatoes **Jun**, Jul*
  sausages **Jan/Feb**
  sugar Sep
Fridges, 480–520 L **Mar**
  385–445 L **Nov**

Genetic testing and insurance May
Glasses and contact lenses Mar
Glycaemic index Sep

Health
  antibacterial products Jan/Feb
  antibiotics, resistance to Apr
  insurance **Aug**, Sep*, Dec*
  laser eye surgery Jul
Healthcare
  Budget changes Jul, Sep*
  caring in the home Jun, Aug*, Sep*
  compared to US May
  PBS changes Jun
Hearing aids Jan/Feb
Heat lamps, bathroom **Apr**
Holiday driving, safety Dec
House and contents insurance **Nov**, Jan/Feb*
House paint, exterior **Nov**
Household chemicals, disposing of Sep

Index, four-year Jun
Infomercials and advertorials Jul
Insurance
  genetic testing May
  health **Aug**, Sep*
  house and contents **Nov**, Jan/Feb*
Inter-city transport Jun
Internet, 'number unobtainable' charges May
Investing
  agricultural / scams Jul
  cash management trusts May
Irons, steam **Jan/Feb**

Jumper leads **Mar**

Laser eye surgery Jul
Laundry detergents **Apr**, Jun*
Lemon laws for cars May
Lipstick, long-lasting **Sep**
Long-distance phone calls Sep

Markets, concentrated Oct
Mattresses, camping **Nov**
Mayonnaise and salad dressings **Aug**
Medicare
  Budget changes Jul
  compared to US May
Millennium bug Jun
Mini stereo systems **Dec**
Mobile phones
  digital **Jan/Feb**
  how to buy Jan/Feb
Modems, V.90 standard Oct
Money professionals, choosing Sep, Jan/Feb*
Money scams Jun
Mould removers **Sep**

Ovens, electric multifunction, wall / under-bench **Jan/Feb**

Packaging, size vs value Jun
Paint, exterior **Nov**
Paper products, labelling May
PBS changes Jun
Pharmacy vs supermarket prices **Oct**
Phones
  how to buy a mobile Jan/Feb
  calling number display Aug, Oct*
  cheaper STD phone calls Sep
  mobile, digital **Jan/Feb**
Planners, financial, trial **Oct**
Plastic food storage containers **Sep**
Potatoes **Jun**, Jul*
Prescription drugs, cheaper Jun
Printers, computer **Jul**, Sep*
Product certification schemes Apr, Jun*
Product safety Sep, Dec*

Refrigerators — see Fridges
Retirement savings accounts Aug
Retirement villages Apr

Safety, product Sep
Salad dressings and mayonnaise **Aug**
Sanders **Aug**
Sausages **Jan/Feb**
Scams
  agricultural investments Jul
  money Jun
Security screen doors Oct
Shopping
  bulk buying, is it cheaper? **Jun**
  concentrated markets Oct
  convenience store vs supermarket prices **Apr**, Aug*
  pharmacy vs supermarket prices **Oct**
  supermarket price survey **Jul**
Shower heads, water-saving **Dec**, Jan/Feb*
Single-use cameras **Dec**
Soap Jun
Sparkling wine and champagne **Dec**
Spectacles and contact lenses Mar
STD phone calls, cheaper Sep
Stereo systems, mini **Dec**
Storage containers, plastic **Sep**
Sugar Sep
Sun shelters **Dec**
Superannuation
  retirement savings accounts Aug
Supermarkets
  price survey **Jul**

Telephones — see Phones
Television, digital May
Televisions, 51 cm **May**, Jul*
Thermometers, electronic **Mar**, May*, Aug*
Toothbrushes **Nov**, Jan/Feb*
Transport, inter-city Jun

Vacuum cleaners **Jul**

Washing machines, under $1200 **Sep**
Water-saving shower heads **Dec**, Jan/Feb*
Weedkillers, environmental claims Oct
Window cleaners **Aug**
Woks **Jun**, Aug*, Oct*
Wrinkle creams Jul, Sep*

Become a friend of the Consumers' Association

Your donation or bequest to ACA will assist our work of informing and representing Australian consumers. To make a donation or for further information, call Kathy or Toni on (02) 9577 3399 or write to: Friends of ACA, 57 Carrington Road, Marrickville 2204.

the HARD word

$100,000 up for grabs!

A big thanks to kindred spirits, the Australian Skeptics, who wrote to congratulate us on *The Hard Word*.

They reminded us of their $100,000 challenge, payable to anyone who can successfully show evidence proving paranormal, supernatural or pseudoscientific claims (like water divining, predicting the future, ESP and so on). After 18 years, the prize is yet to be claimed, which should be sufficient warning not to spend your money on any such nonsense.

Spotter's Fee
Do you know a true
Psychic or Healer?
We will pay you $20,000 if you can find a person who successfully completes our $100,000 Challenge.
Australian Skeptics

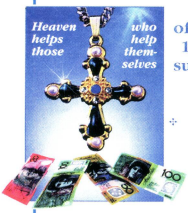
No kidding!

Has THE HOUSE OF MIRACLES applied for its $100,000 from the Skeptics?

This "supernatural Blue Cross" (below), blessed with "101 super lucky powers", is apparently "the most powerful talisman in the world".

Untold wealth and happiness can be yours simply by taking part in their "90 day, free no-obligation trial". "Free" is debatable, however. You're obliged to fork out $39.95, although it's fully refundable if your life hasn't changed for the better in the three months.

If you're lucky enough to get your money back, you'll be thinking the cross was worth hanging onto after all!



Make a success of your life with the 101 extraordinary super powers of the Blue Cross

- *Whoever wears the Blue Cross will meet with unlimited luck*
- *Results GUARANTEED*
- *90 days free no-obligation trial*

How about a little help?

***The Hard Word* would like to thank all the readers who have responded with examples of outrageous ads, promotions and products. Thanks to Dawn Chambers, Dr John Happs, Ian Skinner and Patricia Lane for their contributions to this month's *The Hard Word*. Please keep sending them in.**

If you have any examples that you think deserve to be on this page, send them to *The Hard Word*, CHOICE, 57 Carrington Road, Marrickville 2204, or email your suggestions to thehardword@choice.com.au.

HEALTHY FAMILY SNACKS AT FRANKLINS
25% LESS FAT THAN MOST CHIPS - 100% MORE FUN

Smells fishy...

When will advertisers learn that just because something has less fat than something else, it can't necessarily be called "healthy"? These **GOLDFISH** snacks may well contain "25% less fat than most chips" but with a fat content of around 23%, they've got a long way to go before they can be considered the healthy snack **FRANKLINS** is advertising them as.

Hints and Nutritional Info.
Chop finely for use in recipes or as a garnish. Use in soups, salads, curries and stews. Also known as Chinese parsley. Provides small amounts of vitamin A, C, iron, and potassium. No fat.
599

Fat and fatuous

If you're after a genuinely healthy snack, you can't go wrong grazing on some coriander — according to this label, it contains **NO FAT**! What statement of the obvious will they come up with next?